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Addresses

THE PLACE OF PHARMACOLOGY IN MEDICINE.

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON PHARMACOLOGY AND THERAPEUTICS AT THE FIFTY-EIGHTH ANNUAL SESSION, ATLANTIC CITY, JUNE, 1907.

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The medical instinct, the impulse to relieve the distress of the sick, is as old as the human race; indeed, it is even older, for we find also among the lower animals positive evidences of attempts to alleviate the sufferings of themselves or their offspring. One of the most noteworthy features of these primordial medical efforts is the almost universal solitude of the remedial agents employed. Thus, the dog finds in grass his complete panacea; the precivilized man, with his strong religious instinct, essayed to cure all ills by incantations and exorcism. In other words, there was no separation of different kinds of suffering; diagnosis was undreamed of, pathology but a fancy, the whole of medicine was therapeutics.

The powers of observing and of recording his experience, characteristic of the human animal, taught man to differentiate between various forms of disease, and thus gradually was developed diagnosis and pathology, but always merely as a means of aiding or perfecting treatment. And to-day, as ten thousand years ago, the whole of medicine should be merely the effort to cure or to prevent suffering.

The physician exists primarily for the purpose of making and keeping people well; at least such is the idea of the laity, although among the medical profession there seems to be some doubt concerning this truism. The patient is sometimes curious as to the name and cause of the disease which afflicts him, but his interest in this question is only an academic one; what awakens his real vital concern is the question of how to get well. Do you think society would support one hundred thousand individuals for the purpose of explaining to the sick man what ails him?

The acme of the medical art is therapeusis. All other branches of medicine, comely as they may be, are but her handmaidens. Diagnosis is essential because without it successful treatment is well-nigh impossible; pathology is important both as an aid to diagnosis and also because the effort to correct unhealthy processes presupposes a knowledge of what these processes are.

The importance of the subject of therapeutics is so self-evident that it should naturally attract the highest interest of the great mass of the profession, but we find, on the contrary, that for years the subject has been most surprisingly neglected. Where we find one investigator at work in the laboratory, striving for a better appreciation of our modes of treatment, we will find twenty in the autopsy room studying the appearance of the organs of a corpse.

Year after year we gather in medical societies and discuss cases showing unusual symptoms, or points of difficult diagnosis, or problems in pathology; but year after year we fail to say anything about the treatment of the disease. This section itself is an evidence of the desuetude into which the subject of therapeutics has fallen, for, despite its vigorous activity in the last few years, it still remains the smallest section affiliated with the American Medical Association, whereas it should be the largest after the general Sections on Medicine and Surgery. In the face of such lack of interest among physicians in the divine art of healing, can we wonder that Eddyism, faith cures, osteopathy and all other kindred schisms flourish so luxuriantly?

Two very different results have followed this slighting of the subject of therapeutics. On the one hand has arisen a group of nihilists, who, because of their own ignorance of the value of medicinal measures, or the means of applying them, stalk up and down the world, proclaiming that all drugs are useless. On the other hand, those who have looked to the leaders of the profession for advice as to curing their patients, being turned away in scorn, have accepted the exalted accounts of those interested in the sale of drugs, and dosed their patients with the unspeakable concoctions of the nostrum monger.

With the former group I confess I have but little patience; the egotistical effrontery of an ignorant workman, who, because he does not know how to use his tools, boldly denounces the tool as worthless, excites disgust for his self-conceit rather than pity for his ignorance. To such practitioners I can only say that if they can not treat disease they had better abandon the profession of medicine.

The second result of this neglect by our medical schools and by our medical societies has been the abnormal development of the business of manufacturing secret mixtures. The evils of the traffic in nostrums has received so much attention in the last few years by both the lay and medical press that I feel a hesitancy in broaching the subject of such an oft-told tale; but my excuse is that weeds grow faster than flowers, and that until the last specimen of rank vegetation is uprooted from the garden of medicine we can not cease our vigilance. At present we are in the throes of a crisis in the struggle against the abuse of the trademark and copyright law. Like a sleeping Gulliver, the medical profession has allowed itself to be bound down with innumerable bonds until only with determined effort can it hope to free itself. Thousands of physicians throughout the country have become so much the slaves of the nostrum that they can hardly practice medicine without set formulas, and they allow their practice to be governed by the assurance of the glib-tongued ignoramus

who calls at the behest of the drug house to instruct them how to treat their patients.

On the other hand, so accustomed have the proprietors of these mixtures become to the supineness of the physician who allows his desk to be made the repository of brilliant-hued blotters and his journal a collection of "patent medicine" advertisements, more blatant in their falsehood and indecency than the yellowest of the yellow press, that when a physician dares to utter an opinion contrary to the interests of the pharmaceutical proprietor he becomes the object of astonishment to the profession and of vituperation by the editorial employés of the drugmakers all over the country.

It is easy to diagnose the disease which afflicts the body medical, and it seems to me that the remedy is almost equally plain. If our therapeutics has atrophied from lack of use, is not exercise the natural treatment to restore its function?

We frequently hear discussions whether medicine can be regarded as an exact science. The debators of this question lose sight of the fact that the practice of medicine is not a science at all; it is an art based on a number of sciences. The successful artist must have as his first requisite the genius for his art, but he must also be educated in its fundamental principles. A few years ago Blind Tom, an ignorant negro, pleased and astonished thousands by his musical performances. Magnificent as was the man's genius he might never hope to become a truly great musician, because he understood nothing of musical philosophy. In the same way, no matter how wonderful is a man's genius for medicine, he can never rise to great heights as a practical healer unless he understands something of the basic sciences of therapeutics.

Of all the sciences on which we might build a system of therapeutics the most important is pharmacology, because, after all, despite the assertions of certain factions, in the great run of cases drugs still hold our chief confidence in the treatment of disease. Therapeusis is an art, but pharmacology is a science. We might logically debate the proposition whether pharmacology is an exact science if the latter term had any meaning. Science is a collection of facts, and a fact is a fact, and no fact can be more true than any other. The difference between the sciences is simply in the number of facts which have been determined for each, and in no realm of knowledge have we touched on the infinite number of possible facts, the truth of which can only be settled by experiment. Pharmacology is a young science, and there are many questions urgently demanding answer, but as far as it goes its facts are as certain and as unwavering laws as those of chemistry or any other branch of natural philosophy. Chronic objectors instance some well-known drug and point to the diversity of effects it exercises in different persons or under varying circumstances. But we find as remarkable changes brought about by dissimilar conditions in every other field of investigation. Tannic acid precipitates many alkaloids from their aqueous solution, but makes the mixture sufficiently acid and no visible change occurs. You ask me why it is that one person is poisoned by half a grain of quinin; I ask you why it is that the presence of potassium iodid renders iodin soluble in water.

Train our medical students into a true knowledge of the functions of the healthy human body; teach them the character of the changes which are produced in those functions by disease, and then teach them what we know of the effects of drugs on the healthy and on the diseased body, and when they understand these facts because they know the possibilities of drugs they will not throw them away as useless; and because they know the limitations of drugs they will not be tempted to wander into the fields of polypharmacy or nostrum-giving.

THE PHARMACOPEIAL VERSUS THE PROPRIETARY MATERIA MEDICA.*

ADDRESS IN BEHALF OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

JOSEPH P. REMINGTON, M.D.
Chairman of the Delegation to the Section on Pharmacology and Therapeutics.
PHILADELPHIA.

In tendering the congratulations of this delegation it would seem appropriate to present to this body, in behalf of the American Pharmaceutical Association, a few facts bearing on recent advances and on legislation, national and state, which are of the greatest importance to both professions.

The association which I have the honor to represent was founded in 1852, and, notwithstanding its noble record of achievement, it is remarkable that it has taken over fifty years of existence before the adoption of one plan of enlarging its usefulness and developing its resources; i. e., the establishment of branch organizations in the various centers of population in the United States one of the wisest policies which has been adopted successfully, by the branches, is the enlistment of the interest of physicians in matters pharmaceutical, and during the last year many valuable meetings have been held, and the discussions have been reported largely in the medical and pharmaceutical journals, and, on many occasions, in the newspapers.

It may not be amiss to remind you that one of the primary objects of establishing this Section on Pharmacology and Therapeutics was to enlist the cooperation of pharmacists in order that better results might be secured in developing thought, maturing ideas, instituting reforms and breaking down the spirit of opposition and rivalry which, for many years, effectually barred progress.

The United States Pharmacopeia represents the combined labors of both the medical and pharmaceutical professions and now, since it has become the standard through the enactment of the Food and Drugs Act, there has never been a better time in the history of the United States for physicians and pharmacists to join hands and to embrace this opportunity for perfecting the standard. If you will permit me to make a suggestion, the American Medical Association should appoint a committee, as soon as possible, to take up the subject of revision of the Pharmacopeia and to prepare a report which should be presented at the next pharmacopeial convention in 1910, which will particularly deal with drugs and preparations suitable for admission to the next Pharmacopeia; to do this most effectively, statistics should be collected, showing the use of preparations throughout the United States in order to determine the important question of admissions and rejections. Similar reports will undoubtedly be presented by other organizations; but the report of the American Medical Association should have great weight, because it would

* Read in the Section on Pharmacology and Therapeutics of the American Medical Association, at the Fifty-eighth Annual Session, held at Atlantic City, June, 1907.

undoubtedly be most representative of the views of the largest number of medical men in the country. That a large share of this work should be done by the members of this section goes without saying, and, although I am a member of this section, I am not sufficiently informed on the proper parliamentary methods of bringing about such a consummation; it is, therefore, presented as a suggestion.

That the physicians of this country have taken very little interest in pharmacopeial revision during the last fifty years is a fact denied by no one. Various reasons have been assigned for this. It is true that we hear repeatedly to-day the question, "What is the Pharmacopeia? I never use it." If the answer is made, "What kind of preparations do you use in your practice?" the reply most frequently given is, "I use anything which will benefit my patient." Further inquiry generally develops the fact that the physician employs "the latest thing out" and has for his instructors the army of commercial travelers of firms who make a business of exploiting their specialties, the ingredients of which are not divulged, and, of course, it is far easier to trust the "mysteries" of the combination of therapeutical agents to manufacturing houses of large experience and boasted pharmaceutic and therapeutic skill than it is to study the art of constructing prescriptions individually. How is it possible to avoid untoward results when the practitioner prescribes and administers secret preparations, the knowledge of whose properties is derived from parties whose commercial existence depends on lauding the virtues of the combination and concealing its defects?

It is not possible nor even desirable that manufacturers of special products should be legislated out of existence, but it is possible and very necessary that they should furnish the physician with accurate information of the constituents and qualities in the preparation.

This is not an age of mystery; it is the duty of science to deal with facts. The quack and charlatan play on the ignorance of their victims, and it is entirely foreign to the function of able physicians to assist, even in the slightest degree, those who employ methods of secrecy or mystery in the preparation or exploitation of their products.

The passing of the Food and Drugs Act and the masterly effort of the chief chemist of the Government Bureau of Agriculture are having a tremendous influence in tearing away the veil of secrecy from proprietary medicines, which are largely used and prescribed by the medical profession. Rare drugs (exclusively controlled by a manufacturer), special machinery, and skill not to be found outside of his laboratory are the baits to lure the credulous and too easily convinced physician, but the last few months have witnessed a mighty revolution in the exposé, forced by the Food and Drugs Act. Practitioners have been amazed to discover that some specialty that they have been employing for years owed its virtues to morphin, cocain, codein, hydrated chloral or other powerful agent. These were skilfully concealed, pleasantly presented and confidently swallowed.

The fiat issued from Washington that the label must tell the truth marks the death knell of many specialties and it is but the beginning of a reform which is far reaching.

It is but natural that pharmacists should be wide awake on this subject, because the responsibility of violating the provisions of the Food and Drugs Act rests on them, and penalties or imprisonment await the persistent offender. But it is difficult to find a reason for the apathy pervading the medical profession, and comparatively few physicians understand the importance and far-reaching effects of these laws.

The American Medical Association has, during the past year, done yeoman service in pointing out preparations which are non-secret and ethical, and the good work still goes on, but the real strength of this movement lies in an awakened public.

It is safe to say that, even if the laws now in force should prove defective in any particulars, amendments will be speedily passed by Congress and legislatures; for the demand from the North, the South, the East and the West has gone forth in an ever-increasing volume, swelling from sea to sea, that now, and hereafter, deception and robbery in food and drugs shall cease and "the label shall tell the truth."

In conclusion, the American Pharmaceutical Association, through its delegates, congratulates the American Medical Association on the success of its efforts in bringing about the reforms which it has instituted, and it may be confidently predicted that the body which we represent will lend its influence and give its aid in all measures which will advance the general welfare and uplift both professions.

PHARMACISTS AND PHYSICIANS AND THE FOOD AND DRUGS ACT.

REPORT OF THE SECRETARY TO THE SECTION ON PHARMACOLOGY AND THERAPEUTICS, AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, JUNE, 1907.

C. S. N. HALLBERG, Ph.G., M.D.
CHICAGO.

The past year has been an eventful one for medicine and pharmacy. The federal Food and Drugs Act, which went into effect Jan. 1, 1907, marked a new era, since for the first time in the history of the United States definite standards were adopted for drugs, chemicals and medicines through the legal recognition of the U. S. Pharmacopeia and its auxiliary, the National Formulary. Although the standards of the U. S. Pharmacopeia have been recognized by different departments of the Federal Government for a long time and have been generally accepted by the state pharmacy acts and by the courts, not until this year may it be said to have secured general recognition throughout the Union. There are two provisions in the act to which it is desired to direct attention, since state legislation modeled on their identical lines has been attempted and already secured by several states:

1. The provision requiring medicines containing alcohol and a number of potent and habit-forming drugs to designate these articles and their quantities does not exempt preparations of the U. S. Pharmacopeia, the National Formulary and physicians' prescriptions. Since the articles of the U. S. P. and N. F. must conform to the requirements of these standards unless especially excepted, and physicians' prescriptions are not often subject to interstate commerce and are of a confidential character as between the physician and his patient, there is no necessity for the label requirement in these three classes of medicines. This has already been generally recognized, and in several state laws recently passed exemptions have been made from these label requirements.

2. A more serious phase of this question is presented, however, by the provision in section 7, viz., that all articles of the U. S. Pharmacopeia and National Formu-

lary must conform to the requirements therein unless it is especially declared on the label that they differ. This means practically that any preparation may be made of any strength, provided the strength is named. For example, tincture opium, of which the official strength is 10 per cent. of opium, or 1.2 per cent. morphin, may be 5 per cent. or only 1 per cent. of opium and corresponding morphin strength, if it is only so stated on the label. The result has already been that chemicals below the official requirements as to strength, quality and purity are sold. Thus magnesium carbonate is labeled "for technical purposes;" sublimed sulphur "for mechanical uses," etc. Such chemicals for commercial, industrial or technical purposes may, and often do, contain poisonous substances, such as salts of the heavy metals, lead, copper, tin and poisonous compounds of arsenic, antimony, etc., which would be entirely excluded if they were offered without this qualification. This label requirement applies only to the original large packages of these cheaper chemicals in bulk and, necessarily, labels are never seen by those who may use the chemicals as medicines. In fact, except for interstate commerce, they may not appear on the packages bought by the retail pharmacist and, unless he examines these articles, he may be selling impure or adulterated medicines unconsciously. The law in this respect lends a false security which is, to say the least, very undesirable. Ever since the advent of pharmacopeias—practically a century—it has been the law, written and unwritten, that when the article is sold under the official title it must have the official requirements, that it must conform to the tests for identity, purity, quality and strength. In order to make adherence to these standards more acceptable to manufacturers, the U. S. Pharmacopeia, Eighth, affords certain limitations as indicated in the purity rubric.

It is, therefore, recommended that in all state legislation the following modification of the federal law should be insisted on:

a. Exemption from the label requirements for the articles of the U. S. Pharmacopeia and National Formulary and for physicians' prescriptions.

b. Articles of the U. S. P. and N. F. must conform to the requirements, although, if feasible or desirable, the preparations may differ in color or flavor from the N. F. formula product if so stated on the label.

RELATION OF PHARMACISTS TO PHYSICIANS.

The reformation of the materia medica and therapeutics and the work of the Council on Pharmacy and Chemistry have brought prominently to the notice of the medical profession the two legal standards for medicines; consequently also the pharmacist is reminded of these standards and incidentally of his relation to the physician.

The pharmacist has been in an unfortunate position, somewhat similar to that "between the traditional man in red and the deep blue sea." With ethical proprietary medicines and foreign synthetics on one hand and secret "patent medicines" on the other, his lot has been anything but a happy one. He now sees an opportunity again to become the compounder at least, if not the manufacturer, of the medicines used by the physicians; those who are awake and ambitious realize that a new era has begun for pharmacy. Unfortunately there are "druggists" and pharmacists just as there are "doctors" and physicians, and to distinguish between these is a difficult and almost hopeless task. Following the lead of medical men, however, the better class of pharmacists have organized local societies as branches of the American Pharmaceutical Association and have taken up the work of awakening the pharmacists to the possibilities being presented to them through the movement of reform now in progress in the medical profession. That some of the causes which have been destructive alike to pharmacy and medicine may be modified if not removed, the encouragement of the American Medical Association is sought in behalf of the educated pharmacists of this country, who, through their national association—the American Pharmaceutical Association—are, like the physicians, working for the elevation of their calling and the improvement of their profession and practice. To facilitate the work of the local branches it is suggested, therefore, that this Section take such action on the following subjects as it may deem appropriate:

The Status of the Prescription.
Prescribing by Druggists.
The Attitude Toward "Patent Medicines."
Dispensing by Doctors.

Original Articles

MEDICAL TREATMENT OF CHOLELITHIASIS.*

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Two things have contributed to put the treatment of cholelithiasis on a certain basis. First, the demonstration by Naunyn that the chief elements in the formation of gallstones are infection of the bile tract and stagnation of bile. An important addition is suggested by the recent experiments of S. P. Kramer, who shows that the germs most commonly concerned, perhaps, in bile tract infection—*Bacillus coli* and *B. typhosus*—precipitate bile by their activity in test tubes. Second, the revelations of the actual conditions in gallstone disease by surgeons, correcting and amplifying the study of the anatomic conditions as made known previously by post-mortem examinations.

Prevention of cholelithiasis, in a broad sense, is an academic question, like physiologic perfection in any other respect. In practice, aside from general advice, such as few people heed, prevention must be limited to those patients who have an especial tendency, as indicated by a previous history of infection of the biliary tract. So patients who have had post-typhoid cholecystitis should be clearly advised of the possibilities and put on such treatment as will be likely to lessen the chances of gallstone formation.

It may be worth while touching briefly on the details, though these are, in general, well known. The diet should be full rather than slender; the meals frequent and at regular times rather than few or variable; a mixed diet is better than any one based on theoretic conceptions of the food elements going toward the formation of biliary stones. Regular movements of the bowels should be secured, using the simplest and most natural methods first. A very important point is the drinking of sufficient water to dilute the body fluids and to assist in intestinal peristalsis. If necessary, laxatives should be used. Among these Carlsbad water is often useful, but can not be said to be always or specifically valuable. Some persons can take hot Carlsbad water daily, with advantage, for long periods; others

* Read in the Section on Pharmacology and Therapeutics of the American Medical Association, at the Fifty-eighth Annual Session, held at Atlantic City, June, 1907.

soon acquire a gastroduodenal catarrh or aggressive one already present. The same possibilities are true of hot plain water, so often recommended. If a laxative salt is necessary sodium phosphate certainly seems the best one for long-continued use. But before using such preparations it is worth while trying the effect of cool drinking water taken before meals, and particularly after rising in the morning.

Regular movements of the bowels and proper meals unquestionably tend to lessen bile stagnation. Certain other things can assist. So, for example, exercise taken according to the patient's needs and habits. Tight clothing around the body should be avoided. The mere removal of corsets, so often insisted on, does not always secure the desired end. Many of the "hygienic" garments advocated by anti-corset speakers are as tight as the others. Congestions of the portal circulation due to disease of the heart, lungs or liver, should be reduced as much as possible. Systematic deep abdominal breathing is, perhaps, a useful aid in overcoming such congestions.

Among drugs used in suspected infection of the biliary tract salicylates are probably of definite value as disinfectants and cholagogues. Their effects must always be watched and undesirable results prevented by timely suspension of the remedy.

In discussing the treatment of gallstone disease already in existence it is necessary to distinguish between clinical and anatomic diseases. Many people, of course, have gallstones without ever having symptoms that are recognized. Of these, and of stones found at surgical operations, I shall not speak. The possibility of dissolving gallstones in the gall bladder or ducts is not yet abandoned; in fact, it is difficult to doubt the good faith of many observers who believe that such a thing is possible. Personally, I have never attempted to bring about solution of gallstones in the body, but have seen patients in whom others had tried practically all the remedies recommended for that purpose. I have never seen any evidence of even partial solution or softening, but have seen complete failure after the most thorough use of various drugs. But even if we were able to dissolve stones in the gall bladder as quickly as the most favorable accounts would lead us to think they can be dissolved in test tubes, the gain to the patient would be very slight. It is well known that gallstones can be formed very quickly, within a few days. So that as long as the stone-forming disease is present, solution of the stones is a very imperfect mode of treatment.

From every point of view it seems important to look on the stone as less important than the infection in clinical cholelithiasis. The treatment, then, in any case will depend on the interpretation of the clinical features. The so-called colic in by far the great majority of cases is not a mere colicky pain like that which occurs in ureteral calculus, but is usually an inflamatory pain, with the danger in all cases, of peritonitis, perforation, gangrene and more or less distant or widespread infection The condition in many respects is like that in appendicitis; the anatomic condition may be of any grade of severity; the attack may subside, may recur or not, or a dangerous train of events may arise at any moment. The therapeutic problem is not merely to lessen pain, to diminish spasm, but to lessen inflammation and to diminish the risks due to inflammation and infection and their possible results. The majority of cases in the attack are not surgical; and yet, just as in any other local inflammation in the peritoneum, every case must be viewed with a surgical eye, and if the physician in charge is not competent to do this himself he should certainly have the cooperation of an expert surgeon.

For the attack the indications are to relieve pain, to lessen inflammation and to diminish the risk of stagnation of bile. For the first indication opium is indispensable. A hypodermic injection should be given large enough to lessen the worst of the pain, but not so large as to entirely becloud the clinical picture. Atropin may be added with advantage and in full doses. For the rare agonizing pain a whiff or two of chloroform sometimes seems necessary, yet there is a serious practical error connected with the use of chloroform in gallstone colic. Some people seem to have an idea that full chloroform anesthesia will paralyze the muscular fibers of the bile ducts in such a way as to allow a stone to become freed. Acting on this principle, I have seen a man kept almost constantly under chloroform for seven days, and in many cases for shorter periods, but without any good result. Personally, I never use chloroform in such cases.

A hot-water bag or compress, or any other hot application, is often useful in relieving the pain. The hot full bath can also be used with advantage. I prefer to these external applications copious washing of the stomach with hot water or hot Carlsbad water. This seems the most soothing way of using heat and, theoretically, should lessen congestion and swelling and act as a general sedative to the affected tissues. The lavage is repeated every two or three hours according to the indications, during the period of most severe pain, and once a day afterward.

Rest should be enjoined so far as possible. Movements of the bowels should be encouraged by hot Carlsbad water or enemas. The after-treatment depends on the suspected conditions in the biliary tract, and after the acute symptoms have subsided careful attention should be paid to the presence or absence of bile in the stools or urine, the temperature, the leucocytes and the physical condition in the region of the bile tract. The treatment of obstructive jaundice does not need discussion here.

I think the passing of gallstones through the common duct, and finally per rectum, a comparatively rare event. In the most important cases, the actual proportion of which is very uncertain, the cessation of symptoms is due not to an escape of the stones but to the subsidence of impaction and inflammation. Small stones may pass the common duct, I will not deny that large ones can, but I believe that in many cases when this is supposed to have taken place perforation had occurred. Perforation can easily happen during severe attacks of so-called biliary colic, but I am convinced that it sometimes occurs with milder symptoms, so mild in fact as to be overlooked at the time and only discovered by operation or autopsy.

A few words regarding the use of olive oil may be in order. The solution of stones in the bile tract by internal administration of olive oil is believed by very few. It is probably true that some of the early use of olive oil was encouraged by finding soap concretions in the stools, and yet there are reasons for thinking that oil may nevertheless be useful in cases known as gallstone colic. In some of these it is probably useful because there is an error in diagnosis, and the supposed gallstone colic is a pain due to spasm of the pylorus from hyperchlorhydria or something else. It is well known that gallstones are sometimes associated with reflex dis-

turbance of the stomach, either secretory or sensory. If hyperchlorhydria is associated with gallstones olive oil given before meals will lessen the secretion of HCl, and in that way relieve some of the symptoms. In other cases there is little or no free HCl, but this may be combined with a hypermotility of the stomach. Olive oil will lessen the hypermotility and, in some cases, by so doing, improve the intestinal digestion. A careful series of clinical studies and experiments has been made in my wards by Dr. D. M. Cowie, and an article soon to be published by him can be read with interest by those who have used olive oil as a remedy against gallstones, as well as by those who are chiefly interested in its use in stomach diseases.

DISCUSSION.

DR. SOLOMON SOLIS-COHEN, Philadelphia, has failed to find an infallible remedy for gallstones. In his opinion, a case of cholelithiasis that gives symptoms is at least potentially a surgical case. Persistent or recurrent indigestion with recurrent pain should always arouse suspicion of cholelithiasis among other possible diagnoses.

DR. E. W. GOODENOUGH, Waterbury, Conn., gives a tumblerful of olive oil at the time of colic. The next morning the bowels move freely, whether morphin and atropin are given or not, the tongue is left moist and the alimentary canal clear. For this reason alone Dr. Goodenough considers olive oil valuable, if it were useful in no other way. He emphasized the value of hot Carlsbad salts and general hygienic treatment. In a large proportion of gallstone cases the individuals have suddenly grown stout. Females, gain in weight 10, 15 or 20 pounds, near the time of the menopause or during pregnancy, and in trying to conceal the enlarging abdomen they do not change the size of their corsets, thus increasing the pressure on the liver, where such pressure is undesirable. Dr. Goodenough has found the form of corsets used for the prevention of enteroptosis useful. These must be three or four sizes larger at the waist than the ordinary style, and the pressure from below upward, gives the waist a chance to expand and relieves the hepatic pressure. He pointed out that in pregnant women, some form of support is to be used, loose at the waist, and supporting the skirts from the shoulders. Women take off their corsets, or use corsets without steels, and yet wear the same tight waistbands as before. They forget that these produce as much harmful constriction as the corsets themselves. This explains the lack of benefit, in some cases, of corset removal.

DR. W. W. TOMPKINS, Charleston, W. Va., believed that in these cases the whole treatment is practically summed up in treating the attack, and the one remedy is morphia, combined with atropin, if desired. The great trouble with these cases, he said, seems to be that after having had one attack, one never knows when there will come another. Life insurance companies exempt any one who has had an attack of gallstone colic for two years from being insurable. Dr. Tompkins believes that it makes very little difference when we eat, or how much we eat, provided we have it properly cooked. People know best what they can eat and what they get most comfort out of. If the attacks occur frequently, surgical treatment is indicated.

DR. H. H. ROBERTS, Lexington, Ky., took issue with Dr. Tompkins in regard to the diet. There is, he said, always an infection in the alimentary tract, and to allow the patient to eat indiscriminately of anything he wishes is very bad practice. He criticised Dr. Dock for not calling enough attention to the diagnosis. It is important to know whether gallstones are present, and this can only be determined by the radiograph or by sieving the stools. So far as the medical treatment is concerned, he believed that very little can be done that has effect on the stone itself, but by directing attention to the metabolism and general secretion of the system, the formation of the stones can be prevented. The manner of living and the diet are the important factors in the whole treatment.

DR. J. C. JOHNSON, Atlanta, Ga., stated that he could report a large number of cases which were dependent on or precipitated by hyperchlorhydria. He believes that, if they did not have this condition of the stomach, many patients would not have the attacks of colic, and that they would not have this condition of the stomach without error in diet. Food is a stimulus to the digestive system, and there can not be normal action of the liver or stomach, without normal duodenal pressure, and this is dependent, in part, on the mechanical and chemical condition in which the food leaves the stomach.

DR. L. AMSTER, Atlanta, Ga., believed it is generally conceded that cholelithiasis is a surgical disease. At the same time some patients refuse operation, and then it becomes the duty of the physician to relieve the patient, if possible, or to make him comfortable. There are a certain number of cases of cholelithiasis that do not need any surgical operation, and that get along very well, even with pronounced attacks occasionally, and that never are operated in and do not have to be operated. Again, he said, there are different stages and varieties of cholelithiasis. There are cases of simple cholangitis without enlargement of the gall bladder and without any jaundice. There are other cases with enlargement of the gall bladder and no jaundice, and more aggravated cases with enlargement of the gall bladder and jaundice. Dr. Amster has found that by putting these patients to bed for eight or ten days, with hot flaxseed poultices to the abdomen, hot Carlsbad salt water internally and dietetic treatment, many of them do very well. This treatment is to be repeated in six months or a year. At the same time there are a certain number of cases which from the beginning belong to the province of surgery. So far as the treatment of the acute attack of cholelithiasis is concerned, it simply amounts to relief of the attack. Dr. Amster believes in regulating the diet, and that it is a very important factor in the production of gallstone colic. Everything should be done to put the patient on a proper diet in order to prevent recurrence of the attack. He has found large quantities of water an excellent remedy, and has seen very little effect from oil or any other solvent. He has tried succinate of sodium, but not sufficiently long to see any results from it. Dr. Amster emphasized the importance of diet and treatment after operation for gallstones. The possibility of a recurrence still confronts the patient. Naturally, he wants to know what he should eat and drink in order to prevent such recurrence. It is therefore important that great stress should be laid on the dietetic treatment after operation.

DR. W. J. ROBINSON, New York City, stated that the medical treatment of gallstones resolves itself into the treatment of the attack and the treatment of the interval. The treatment of the attack is best accomplished by the aid of hyoscin and morphin. The treatment of the interval consists in the use of olive oil, Carlsbad salt, artificial or natural (the best results being obtained with the natural), sodium succinate, sodium salicylate and sodium oleate. These remedies, he said, will generally cure the disease and prevent recurrences. As to diet, he did not think that so much attention need be paid to that, but he agreed that it is important to limit the quantity of the diet, rather than the quality. The patient must not eat indigestible things, but as a rule, the patient is the safest guide as to his diet. Dr. Robinson expressed his belief in the efficiency of the medicinal treatment of gallstones. He has seen and heard of so many patients that have been advised to undergo an operation, that were told that it was dangerous for them to delay any longer, that they were risking their lives, etc., but they continued medical treatment and have been well for ten or fifteen years. Occasionally they have slight colic; they then take olive oil, etc., and feel well again for several years.

DR. JAMES TYSON, Philadelphia, referred to the danger of carcinoma arising from the irritative presence of the stone. He has had two such cases come under his observation recently—chronic cholelithiasis terminating in carcinoma. Therefore, he thinks it important that operative interference for cholelithiasis should not be too long delayed. He has used succinate of sodium a great deal, and finds that fewer cases which he has placed on the succinate of sodium have returned for treatment than when under any other remedy, so that he has fallen into the habit of using it in every case. Whether

or not the succinate is responsible for the disappearance of the attacks he could not say. It is supposed to act as a solvent for the cholesterin, which makes up the chief bulk of gallstones. In the matter of food, he would limit the quantity; and then it seems only reasonable that liquid diet is less likely to be attended by inspissated bile than solid foods. Most of the treatment, including the administration of hot Carlsbad water and milk, is thus based and is rational.

DR. J. F. HULTGEN, Chicago, has had 43 cases among 390 women; that is, over 4 per cent. of his adult women patients have cholelithiasis. About 10 per cent. of these patients have icterus. Repeated attacks of hyperchlorhydria may simulate gallstones, and any condition about the pylorus may produce colics, and lead the physician astray. In regard to the onset of gallstone-symptoms, he said that they are common 5, 6 or 15 years after the initial attack, which usually occurs during the late stages of pregnancy or in the puerperium. There is probably a mechanical factor helping to precipitate the first colic. This may not come back for years, and the patient may simply suffer from dyspepsia which is often not recognized. Dr. Hultgen inclines to the belief that the treatment of cholelithiasis ought to be more surgical than medical, but the weight of clinical evidence and the records of investigators do not seem to justify it, for the simple reason that there is little information about the formation of gallstones. After operation they recur. On the other hand, he thinks not sufficient account is taken of the diseased liver. Surgeons are in accord in attributing the main results in operation for gallstones to drainage of liver. It is not merely a question of the mechanical removal of the gallstones from the bladder, but hepatic drainage. A very small percentage of patients will submit to an operation. Some of them are too poor. Dr. Hultgen practices among a laboring class, and he has been surprised to find gallstones so frequent, especially among women. He has noticed that they grow stout a little before they come to consultation. He has tried olive oil and Carlsbad salt, but he does not know whether his results are due to the treatment or to time. Although he believes the patients get well by themselves, the diet should be regulated, taking into account the quality and quantity, and the removal of any mechanical obstacles to the free circulation of the liver and free respiratory excursions. He endorsed the surgical treatment of gallstones, if only to prevent carcinoma.

DR. T. C. KENNEDY, Shelbyville, Ind., referred to the mineral springs treatment of gallstone disease. The alkaline saline springs have a detergent effect on the whole biliary tract. But many patients are not able to go to the springs for treatment, and those who do go, do not consult the resident physician at the resort, who alone is competent to advise them as to the use of the water. He believes that in these cases a good effect is obtained both before and after operation, and that it is possible in some cases to restore the stone to a latent condition by relieving the inflammation about the gall bladder and gall duct. The patient is not well; he still has his gallstone, but does not know it. He is happy and contented. Where there is obstruction of the gall duct and ulceration an operation must be done. In the mild attacks, much can be done by dieting.

Although the action of succinate of soda and other medicines is not known, Dr. Kennedy cautioned against putting off their use until their action is explained. These remedies, he said, certainly have some action, for many patients get well and stay well for years.

DR. H. E. LEWIS, New York City, emphasized that there is after all no medical treatment for gallstones.

When the diagnosis of gallstones is made, there is only one thing to do, especially after what Dr. Tyson said of the grave danger of malignant growths. Neither should we forget that in the presence of gallstones there is a constant tendency toward infection, with the development of cholecystitis.

Of course, if conditions prevent operation, one will have to make the best of a bad condition. But this does not change the fact that the only logical place for medical treatment is in the prophylaxis of gallstones, and the after-treatment following operation. Diet is certainly of importance in these cases, but it must be adapted to the individual patient, for no two are alike.

DR. GEORGE DOCK, Ann Arbor, Mich., mentioned that a diagnosis of gallstone disease can often be made without the presence or history of jaundice, and these, he said, are extremely important cases. With reference to the danger of gallstones forming after the operation, it is important to realize that the capacity for forming stones is not limited to the gall bladder or cystic duct or common duct, but may take place in the liver. In regard to the matter of diet, he dissented from the statement that it doesn't make any difference about the diet. The ground he takes is that the diet must be such as to keep up the patient's nutrition properly, but have, if possible, a stimulant action without being irritating to the duodenum or any other part of the alimentary canal, but that there is no diet that will prevent gallstones as such. For example, it was formerly believed that if one could limit fat it would prevent the formation of stones. Gallstones may be formed on any diet. In regard to the statement that a limited diet is desirable, he suggested that that depends on the patient. In some we can leave the quality, in others the quantity, to the patient, but it is always safe to see the matter is understood. So experienced a man as Kehr states that large and frequent meals are useful preventives of gallstone symptoms. From some experience Dr. Dock has had in discovering carcinoma early in the history of gallstone, or even in the history of attacks that were typically those of catarrhal jaundice, without positive signs of gallstones, he has fallen into the habit of telling people who have gallstones that they ought to be operated on to obviate the possibility of developing carcinoma. When we make a diagnosis of carcinoma we may state that the patient probably has gallstones; otherwise a misunderstanding may arise later. The mortality varies in accordance with the dangerous processes that have taken place around the bile tract. One can not tell beforehand just how serious the operation is going to be, but the patient should be told that the mortality is not so great, however, as to necessitate the making of a will before operation.

SCARLATINA AND DUKES' DISEASE.

A. C. COTTON, M.D.
CHICAGO.

The struggle for recognition of the different acute contagious exanthems, though interesting as history, need not take our time except as a reminder of the obstacles and prejudices encountered in the evolution of differential diagnosis. As variola and varicella were separated, so morbilli and scarlatina parted company to stand as distinct entities instead of different manifestations or expressions of one contagium.

There are those who can recall the controversy over the identity of rötheln (German measles), and there may be those who still hesitate to award nosologic dignity to that symptom-complex.

With here and there exceptions, however, the profession has accepted rubella as an entity in the group of exanthems, to our great relief in differential diagnosis.

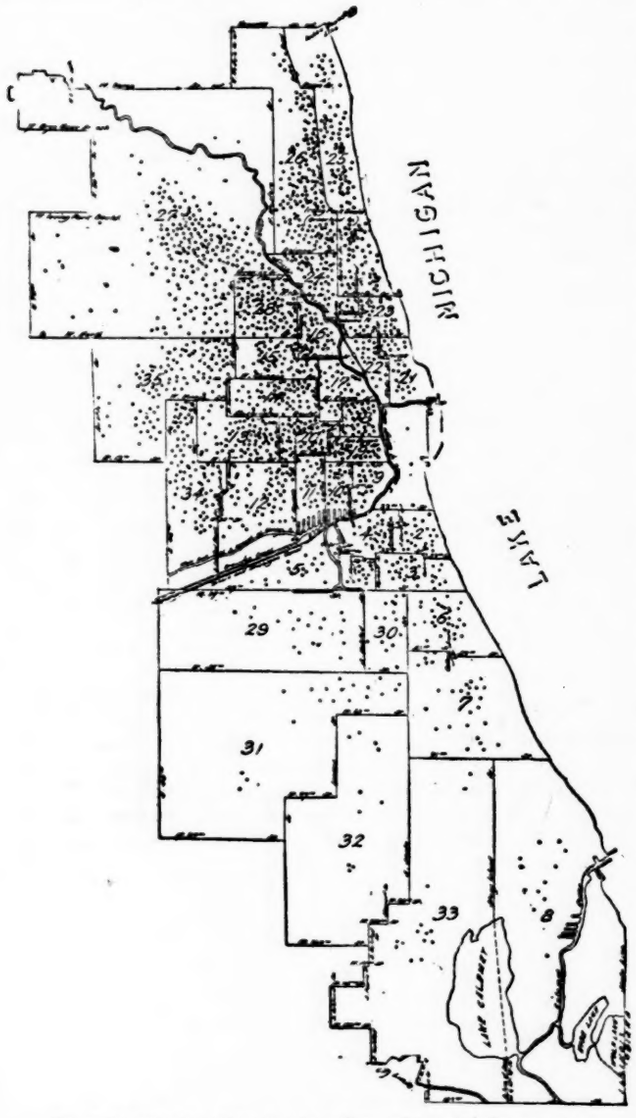
Morbilli, scarlatina and rubella in their typical forms show individuality beyond question. In hybrid forms and in mixed infections differentiation by mere symptoms alone is extremely difficult and at times impossible.

The temptation to theorize and speculate as to the probable causes which influence the clinical phases of these familiar diseases, crowds on the thoughtful observer. In the proper place a yielding thereto may not be unreasonable, since our newly acquired though limited knowledge of bacteriology reveals many and sug-

* Read in the Section on Diseases of Children of the American Medical Association, at the Fifty-eighth Annual Session, held at Atlantic City, June, 1907.

gests more analogies of modified violence of infective agents, and diminished resistance and variable reaction to contagions under varying conditions. Since the etiology of the exanthemata is still obscure (for the present at least) practical work must continue along the line of symptomology and physical findings for our differential diagnosis.

Of the three diseases under consideration, rubella has furnished in its various phases some of the greatest perplexities so closely simulating, especially in its skin lesions, one or the other of its sister exanthems; so that adjectives have crept into the nomenclature and the terms scarlatiniform rubella and morbilliform rubella are becoming familiar.



Map showing by dots the locations of scarlet fever cases.

Filatov's admitted quandary and the contention of Clement Dukes for the recognition of a fourth exanthem are familiar to all; as is also much of the controversy elicited by Dr. Dukes' article in the London *Lancet* (July 14, 1900). Able observers in support of the entity of a "fourth disease" have appeared; as Broadbent, Ashley, Kidd, Romer, J. J. Weaver, Simpson, Curtis, and later (1904) Bokay, Klein, Ruhemann, Cheinisse, Unruh, Illoway and others of wide experience. Much opposition to the acceptance of this new exanthem has arisen. Foremost among the opposers were Poynton, Millard, Williams, Washburn, Marsden, Ker, Rutter and Griffith. In fact, especially in America, a strong disinclination seems general toward further refinement of our nosology. While all admit the difficulties and perplexities that frequently attend classification of atypical exanthemata, they still prefer the employment of such modifiers as *atypical, abortive, sine eruptioné, sine febre, sine anginose,* recurrent and mild as referring to scarlatina and measles, while scarlatinal and morbilliform are applied to rubella. In fact, the same conservatism which delayed the adopting of the classification now universally accepted arrays itself against the recognition of the "fourth disease."

This opposing conservatism I have encountered in the presentation of this subject before the Adams County (Ill.) Medical Society, the Chicago Pediatric Society and in informal discussion with many brother practitioners. All admit experiences with anomalous cases so bewildering as to leave the physician in doubt as to the correctness of his diagnosis, also the too frequent occurrence of apparent exceptions to the law of immunity governing the contagious exanthemata. They insist in spite of the array of eminent authorities that the existence of a fourth disease has not been established by sufficient clinical evidence, and that lack of immunity for a reasonable period against exanthemata which the alleged cases of Dukes' disease most closely simulate has not been found in a sufficient number of cases to prove that these are not merely exceptions to Cullen's Law.

A brief summary of the clinical features of the fourth exanthem as at present understood may be stated as follows: The disease is apparently less contagious than measles, probably equal to that of scarlatina, with a period of transmissibility of from two to three weeks. The incubation period is from one to three weeks. Prodromata are often wanting, the first symptom not infrequently being the rash itself. Occasionally, however, febrile symptoms precede the eruption by from six to twenty-four hours. Initial vomiting is exceptional.

Mild catarrhal symptoms with hyperemia of the faucial, oral or ocular mucosa, may be present, but not usually. The eruption almost invariably appears first on the face, rarely on the neck, and spreads rapidly downward, involving the trunk and portions of the extremities in a few hours. It does not seek the flexures and is usually pronounced over areas irritated by clothing or decubital pressure. Occasionally fine points first appear which quickly blend in a general hyperemia, with rarely small patches of normal skin sharply defined by irregular margins. The marked oro-nasal pallor of scarlet fever is not in evidence. The color of the rash is very suggestive of scarlatina, and fades rapidly after two or three days without stain, such as is observed in measles and often in rubella.

Itching is absent, nor does the skin feel hot to the touch, as in scarlet fever. Desquamation usually, but not always, follows the disappearance of the exanthem. Its character is fine and branny, rather than in shreds and patches, as in scarlet fever. The febrile movement, usually marked, subsides rapidly with the eruption, rarely exceeding two or three days. The tongue, except for occasional coating, is negative, as also is the throat, save occasionally for a mild hyperemia, the pulse shows no acceleration out of proportion to the febrile movement. Usually the postcervical and occipital lymph nodes are palpable early in the attack, but frequently show no swelling whatever. No massive enlargements nor softening have been observed in uncomplicated cases.

As a rule, no sequelæ occur, and rarely complications, the course being usually mild and uneventful.

DIAGNOSIS.

It is differentiated from scarlet fever by: 1, Long period of incubation; 2, absence of initial vomiting; 3, moderate fever of brief duration; 4, normal ratio of pulse to temperature; 5, absence of characteristic scarlatinal tongue; 6, the absence of, or if present the fine character of, desquamation; 7, the freedom from sequelæ; 8, probably the absence of leucocytosis. When one or more cases of apparent mild scarlet fever occur in a family giving a clear history of former attacks of scarlet fever, Dukes' disease may be suspected.

During the recent epidemic of scarlet fever in Chicago my attention was repeatedly called to anomalous cases of doubtful diagnosis. Living contiguous to that part of the city and suburbs where the weight of the epidemic was most felt, unusual opportunity was afforded to examine and discuss with the attending physicians many cases which failed to meet the diagnostic requirements of any accepted exanthema. Rubella, as we understand that disease, was not in evidence and few, if any cases, were reported as such during this epidemic.

Mild scarlatina in children, presumably immune by previous attacks, was so frequent as to attract attention, and failure on the part of physicians to report cases of suspected scarlet fever because of their doubtful character became quite common. Sensational articles in the press promoted a panicky feeling in the community and the aroused public secured appropriation by the city council for increase in the force of medical inspectors by over 300 physicians until every school was under daily espionage and house-to-house inspections made possible.

Through the courtesy of the health department, I have been able to institute some rather unusual comparisons, viz., between statements made to me by physicians in private discussions and reports submitted by the same practitioners to the health department. Personality is, of course protected, since in a majority of cases, failure to report was due to inability to diagnose cases that might be termed at best only suspicious.

From the subjoined table I am confident that health department reports represent less than 25 per cent. of the epidemic. Health department bulletins for the five months of November to March, inclusive, are as follows:

	Cases Reported.	Deaths.
November	519	39
December	586	64
January	3,058	64
February	1,741	154
March	894	108
Total	6,798	429
		Mortality % 6.3 +

Personal interviews with twenty-four physicians gave the following:

	Cases Reported to Health Department.	Deaths.	Cases Admitted to me.
A	12	2	71
B	14	3	20
C	2	1	12
D	0	0	6
E	6	1	12
F	1	0	7
G	9	0	22
H	3	1	9
I	7	1	7
J	4	1	10
K	11	2	28
L	2	0	12
M	0	0	8
N	5	1	14
O	1	0	8
P	0	0	10
Q	3	0	7
R	6	2	30
S	0	0	12
T	6	0	25
U	8	2	40
V	6	1	35
W	4	1	18
X	7	2	55
	117	21	478
		Mortality.	
		17.9 %	4.8 % +

For further information I mailed early in April 500 return postal cards to practitioners in the districts reporting the greatest number of cases of scarlet fever, as shown on the spot map (Fig. 1).

Copy of card sent, with replies reduced to percentages:

Dear Doctor —Believing that observation of busy physicians during our recent epidemic will throw light on the question of a fourth exanthem (the so-called "Dukes' Disease") I send you this circular, trusting that you will render valuable assistance by filling out and mailing the attached card for which I thank you in advance as a personal favor.

Very truly yours,
A. C. COTTON, M.D.

1. In what percentage of your cases suggestive of scarlet fever do you believe *that* diagnosis was permissible?

Answer: 82.5 per cent.

2. What per cent. were not diagnosed, or in which no diagnosis was possible?

Answer: 6.66 per cent.

3. What conditions rendered diagnosis difficult?

Answer: Mainly absence of characteristic signs and symptoms, mildness of attack and history of previous attack.

4. What per cent. of your cases diagnosed as scarlet fever were typical?

Answer: 79 per cent.

5. (*a*) How many cases of suspected scarlet fever gave clear histories of previous attacks?

Answer: 106 reported by 52 physicians; 17 per cent reported by 16 physicians.

(*b*) In how many of these was the recent attack typical?

Answer: 72 reported by 38 physicians, 89 per cent. reported by 26 physicians.

6. Give any additional information showing the possibility of an unclassified communicable exanthem?

Answer: Only about 3 per cent. seemed by their answer inclined to favor recognition of a fourth disease. Many admitted having given the subject little or no thought.

Nearly 300 answers were returned, with numerous histories of peculiar and anomalous cases.

For want of space I will cite but a few cases which helped to swell the total of our recent epidemic:

CASE 1.—Caroline R., aged 8, having had measles at 2 years, living where epidemic was thickest, attended school, except when it was closed, and visited at week's end a home remote from infected district. Saturday, she showed slight malaise with evening chill after auto ride. Temperature 104 F. At night she vomited much undigested food, perhaps due to stuffing with sweetmeats. Castor oil and citrate of magnesia given and enemata administered. Emesis all day Sunday, temperature from 102 to 104 F., pulse from 95 to 110. Tongue heavily furred.

Sunday slight erythematous rash appeared on face and neck. White line around mouth marked at first, disappeared as nausea subsided.

Monday morning, distinct rash extending downward over trunk, arms and thighs, vomiting stopped, free watery stools, no food given, tongue cleaning at tip and edges. Throat slightly reddened, post-cervical glands palpable. No coryza nor catarrhal symptoms. Temperature a. m., 102 F., p. m., 102 F., night, 101 F.; pulse from 100 to 110.

Tuesday, rash fading from face, tongue cleaning. Took liquid nourishment, bowels loose from small repeated doses of calomel and sodium bicarbonate. Temperature from 101 to 100 F. Pulse 90 to 100.

Wednesday, rash gone, no pigmentation, temperature from 99 to 100 F. Pulse 85 to 90, tongue fairly clean. No special prominence of papillæ. Child hungry and was given very light tray diet. Recovery uneventful. Urine examined every second or third day for a month with negative results.

Friday, the sixth day of rash, a slight, fine desquamation was seen under clavicles, next day becoming somewhat general, fine and branny but nowhere abundant.

In the family visited were two children, Mary (12) and James

(9), against whom patient was quarantined on first appearance of rash. Both children have clear histories of measles, varicella, German measles, pertussis, bronchopneumonia, pink eye tonsillitis, and the girl, of scarlatina when she was 4 years old. Both have had tonsils and adenoids removed.

Saturday afternoon, a week after Caroline's attack, Mary had chill and temperature of 102 F., very slight malaise. Sunday morning James complained of headache and showed temperature of 101.4 F. Pulse accelerated in proportion to temperature. No angina, no catarrhal symptoms, no vomiting.

Sunday afternoon a rash was seen on both children, the girl's appearing behind the ears, the boy's on the face which in both children was covered the following day as were the chest and thighs. The rash was erythematous disappearing on pressure to reappear quite promptly; not uniform, especially on the boy whose groins and joint flexures were not involved, although extensor surfaces of both upper and lower extremities were covered. Oro-nasal pallor was absent, though both faces were erythematous, but not uniformly so. There was slight discomfort and with difficulty the children were kept in bed after the first day, calling for food and frolicking into each other's room when the nurse's back was turned.

The rash disappeared entirely on the third day. No sequelæ. Slight desquamation was observed on the girl at the end of a week. The boy showed little, if any. The visiting girl, Caroline, was returned to her home when the eruption appeared and the chamber was fumigated. Though a quasi-quarantine was established at her home, her mother's sister came unexpectedly on a visit from the country the following week with three children, Eliza (8), Emily (6) and a baby (2 years). Though warned of the possibility of infection the aunt assumed responsibility, as her two girls had had scarlet fever during which attack a third child had succumbed to the disease. The baby boy, however, was taken to his grandmother's, where he remained. The following Sunday the aunt, with her two girls, returned to the country, having been kept indoors during the week's stay in the city. The baby was left with its grandmother to be brought home a week later. Friday a telephone message was received, not to return the baby as the girls were both sick. The family physician was telephoned, who reported that the children had something suggestive of measles. On investigation it was learned that after arriving home in good health, Eliza (8) rode on Wednesday with her father two and a half miles to the cheese factory in the farm wagon (a raw day) and contracted a severe cold with rhinitis, Emily (6) remaining at home because of headache and anorexia. That night both had fever, and on the following morning the local physician found an eruption. Having attended the family through scarlet fever, he was at a loss for a diagnosis. The younger child had no catarrhal symptom, neither showed Koplik spots. The elder developed in a few days a very mild bronchitis as her rhinitis subsided. Neither vomited, neither showed characteristic strawberry tongue, both had tender postcervical lymph nodes.

The rash began on the face; no photophobia nor conjunctivitis. Eliza's throat was hyperemic for two days; Emily's was normal. Temperature reached 104 F. the first day in the older girl, younger showed 102 F. as highest. Saturday the rash was fading. A week later slight desquamation was found on Emily. None was reported from Eliza. The cases were so mild that the family physician made only three visits. Imagine the surprise that the city physician should come twice uninvited more than 30 miles by rail and 3 over bad country roads. In these five cases blood examination showed no leucocytosis and in one case actual leucopenia.

CASE 2.—Robert, aged 8, George, aged 6, Andrew, aged 4, brothers. Andrew, a hemiplegic backward child, succumbed to scarlet fever on the sixth day, at which time George was in his third day of eruption, and Robert, who gave a clear history of scarlet fever five years previously, had a commencing malaise, which afterward proved prodromatic of measles (quite typical in every respect). His (Robert's) angina was unusually severe, from which streptococci were demonstrated, as they also were from the throat of George, whose angina was extreme and showed in addition Klebs-Loeffler bacilli. Antitoxin was administered to both. Blood counts showed hyperleucocytosis in George, but leucopenia in Robert. On the twelfth day George died, the scant urine showing albumin, casts and blood. At this time Robert's eruption of measles had disappeared in natural course, leaving a slight furfuraceous desquamation. Convalescence was uneventful. The house was thoroughly fumigated, and Robert returned to school after an absence of five and a half weeks. Twenty-two days later his good appetite suddenly failed and a slight rash was observed on his face and neck. The physician found a temperature of 102 F. (morning), tongue slightly coated, pulse from 95 to 100 and some general myalgia, while a scarlatinous rash covered face, neck, chest, back, arms and thighs, but was very scanty on the abdomen. The glands at back of neck were slightly enlarged and tender, while the deep cervical glands, anteriorly, which had remained hypertrophied from his attacks of measles, showed no further disturbance. Axillary lymph nodes also showed induration. Blood examination showed no leucocytosis. The urine was negative. The rash, which was scarlet, had entirely disappeared in seventy hours, leaving no desquamation. No sequelæ nor complications. The boy was kept in bed for a week, much against his will.

In 19 doubtful cases blood counts showed but five instances of hyperleucocytosis, in two of which scarlatina in other members of the family corroborated that diagnosis. In a third case the patient developed other signs of pneumonia three days after the blood examination. In the other two cases the patients were lost sight of. Of the remaining fourteen, six showed positive leucopenia, eleven were carefully followed for three and four weeks without any evidence of scarlatinal infection conveyed through them.

DISCUSSION.

DR. J. W. VAN DERSLICE, Oak Park, Ill., said that he had made the diagnosis of Dukes' disease as early as November of last year. It is certain that the epidemic of so-called scarlet fever was very atypical. In a very large per cent. of the cases no such diagnosis could have been made were it not for the epidemic. If, he said, there is a fourth disease it is of the utmost importance that it should be recognized. In some of his cases there was the angina and roseola. There was no desquamation and no contagion to other members of the family. In the epidemic of last winter there were many cases of measles, and whether these cases of Dukes' disease were simply a mild invasion of both diseases, or whether they might more properly have been classed under erythema multiforme, is hard to determine. However, it is manifestly unfair, he said, to quarantine a wage earner with his family for a period of six weeks because of inability to properly diagnose a condition.

EPIDEMIC ACUTE POLIOMYELITIS IN NORWAY IN THE YEARS 1903 TO 1906.

RESULTS OF ANATOMIC INVESTIGATION OF NINETEEN CASES OF ACUTE POLIOMYELITIS AND KINDRED CONDITIONS.*

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AND
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There are frequent accounts in medical literature of epidemics of acute cerebrospinal meningitis. Much more rarely epidemics of acute poliomyelitis have been observed. A few such epidemics have been described, however, and apparently they occur with relative fre-

*From the Pathologic-Anatomic Institute of Christiania.

quency in North America and the Scandinavian countries. It will be remembered that from June to August, 1894, there was an epidemic in the Otter Creek Valley in Vermont of 150 or 160 cases, which probably, at least largely, were cases of acute poliomyelitis.[1] A similar epidemic occurred in New York in 1899[2] with about 30 cases, and a third one in 1902 has been briefly described by Painter.[3] It involved 38 cases of acute poliomyelitis and a few cases of acute cerebrospinal meningitis. Unfortunately, there are no records of anatomic examination from these epidemics, so one can not feel certain that there were not also cases of other diseases, such as cerebrospinal meningitis or multiple neuritis, as has been surmised by MacKenzie. From the clinical symptoms alone it is difficult to determine the exact extent of the disease in the central nervous system, as has been demonstrated by more recent experiences.

In Scandinavia, acute poliomyelitis has been well known for a long time, as it frequently occurs in Norway as well as in Sweden. Medin[4] has described two epidemics in and about Stockholm, Sweden, in the years 1887 and 1895, with, respectively, 43 and 21 cases of acute poliomyelitis, polyneuritis, acute bulbar paralysis, etc., occurring simultaneously.

Similar and smaller epidemics have been observed in Norway and have been described by Bülow-Hansen and Harbitz,[5] Looft[6] and Professor Leegaard.[7] The epidemic described by Leegaard occurred in 1899 and comprised 54 cases. The disease was plainly contagious and spread along lines of communication.

In 1903 and the following year this disease again appeared in different parts of the country. In 1903 there are accounts of an epidemic of 18 cases, with 6 deaths, and in 1904 of an epidemic of 41 cases with 6 deaths, and a second one of 20 cases with 6 deaths. In 1905 the disease became still more serious, invading a great many different districts, especially in the northern part of Norway. Altogether 719 cases with 111 deaths were reported to the State Board of Health in 1905, and 334 cases with 34 deaths in 1906. That is, in two years 1,053 cases with 145 deaths, a mortality of 13.8 per cent.[8] The various local epidemics differed greatly as regards mortality, which sometimes was very high (in one district 26 cases with 12 deaths), sometimes very low. The fluctuation in mortality is partly explained by the occurrence of so-called abortive cases; cases with transient fever, headache, vomiting, angina, pains in the trunk and limbs, sometimes twitchings, but without subsequent paralyses. These patients recovered in the course of a few days. The nature of these cases is not clear; however, we are inclined to include them in the epidemics of acute poliomyelitis and to assume that here also an infection, at least of the spinal meninges and cerebrospinal fluid, has occurred. This assumption is supported by the observation that some of these patients who had been exposed to great physical exertion or to cold developed the typical picture of acute poliomyelitis.

In most of the cases mentioned, the characteristic paralyses remained and they were typical cases of acute poliomyelitis, a diagnosis which has also been confirmed by the anatomic study. In addition, there were a fair number of cases of acute ascending paralysis (Landry's paralysis) in which death resulted from respiratory paralysis. These cases, however, are to be looked on only as ordinary poliomyelitis with certain peculiarities in distribution. Finally, there were also some cases of encephalitis. On the other hand, there were no certain cases of cerebrospinal meningitis occurring simultaneously with epidemics of poliomyelitis. But it should be borne in mind that the diagnosis was often very difficult, and confusion with acute meningitis, as well as with multiple neuritis, might easily have occurred.

Doctor Geirsvold, a physician especially commissioned by the government to study the epidemic, as a result of his studies felt convinced that the disease had to be considered contagious. This view is also supported by some of our observations. Frequently several cases occurred in the same family. In the rather numerous cases in the city of Christiania in 1905 and 1906, however, a painstaking investigation failed to demonstrate any connection between the cases. The disease seemed to leave a certain immunity, the districts ravaged one year, as a rule, being spared the following year. The epidemics occurred in the summer and particularly in the autumn months. The number of cases decreased greatly with the approach of winter and spring, but even then, here and there, a few sporadic cases occurred. Both children and adults were attacked, the majority of the cases being in children.

From the various epidemics we have now had the opportunity to examine necropsy material from 19 cases, namely, (*a*) 13 cases of acute poliomyelitis (including acute bulbar paralysis) from 8 different local epidemics, 7 children and 6 adults. The duration in one case was 2 days, in one 3 days, in one 4 days, one 5 days, in eight from 7 to 9 days, and one 10 days; (*b*) 4 cases of acute poliomyelitis in which death occurred in the stage of repair, respectively, 1½, 6½ 6½ and 22½ months after the onset; 3 children and 1 adult; (*c*) 2 cases of acute encephalitis (1 adult and 1 child) occurring simultaneously with these epidemics and probably etiologically connected with them, certainly so in 1 case.

As to the necropsy findings in general, aside from the central nervous system, they were in all essentials negative in spite of the fact that the presence of an infection must be assumed, and many facts speak in favor of the infection at first being general. There was no distinct swelling of the spleen, no ecchymosis, no parenchymatous degeneration of the internal organs, nor any inflammation in the serous membranes, as in Bassoe's case. In one case only diarrhea had been a prominent symptom, and here we also found evidence of a general, but not very marked, intestinal catarrh. In no case did we find any inflammation in the mouth, pharynx or nose, although there are many features of the clinical picture, especially the frequent primary angina, which would lead us to look for the atrium of the infection in these localities. In this connection, it is well to recall the condition in cerebrospinal meningitis which may be looked on as a closely related disease. Our investigations in this connection are not numerous, and it must be re-

1. Described by Caverly: History of an Epidemic of Acute Nervous Diseases of Unusual Type. Medical Record, Dec. 1, 1894, and MacPhail (A.): Preliminary Note of an Epidemic of Paralysis in Children. British Medical Journal, Dec. 1, 1894.

2. MacKenzie: Epidemic Poliomyelitis, with Report of Ten Cases. Medical Record, Oct. 4, 1902.

3. Infantile Paralysis; an Epidemic of 38 Cases. Boston Med. and Surg. Jour., Dec. 11, 1902.

4. Om den infantila paralysien med. särskild hensyn til dess akuta stadium. Nord. Med. Arkiv., 1896.

5. Beitrag zur Lehre der acuten Poliomyelitis. Ziegler's Beiträge, 1899.

6. Om meningitis cerebrospinalis, encephalitis acuta og poliomyelitis acuta. Med. Revue, 1900.

7. Beretning om en epidemi af poloimyelitis anterior acuta i Bratsberg Amt. aar, 1899. Norsk Magazin for Laegevidenskaben, 1901.

8. A description of the epidemic in 1905 has been given by Geirsvold, Epidemisk Poliomyelit. Bakteriologiske undersögelser. Norsk Magazin for Laegevidenskaben, 1905.

membered that most of the necropsies concerned individuals dead from seven to nine days after the onset of the disease, and by that time an initial angina might very well have entirely disappeared.

In the nervous system the following changes were found: In the spinal cord we found a diffuse infiltrating, inflammatory process closely related to the blood vessels and chiefly in the gray matter, and within this chiefly in the anterior horn. However, the inflammation could be traced more or less in the white matter and, as we especially desire to emphasize, in the pia mater with its prolongations, but always, however, it was demonstrable by microscopic examination only. Macroscopically, we never found more than hyperemia along the fissures and vessels. Generally the inflammation extended along the whole length of the cord, and as a rule was most intense in the cervical and lumbar enlargements. The cellular infiltration consisted partly of small and large mononuclear lymphocyte-like cells, especially in the pia mater and in the white substance, partly of polymorphonuclear leucocytes, particularly in the gray substance, where the cellular infiltration was also more diffuse. The degeneration of the ganglion cells was generally very marked and extended rapidly over large areas of the cord. There were numerous heaps of leucocytes corresponding to degenerated and vanished ganglion cells ("neuronophages"). It must also be remarked that the inflammation was more extensive than might be expected from the clinical symptoms, and that in cases with a clinical picture of acute bulbar paralysis an extensive inflammation all along the cord was found.

The inflammation often had a hemorrhagic character, even to the extent that small hemorrhagic cavities were formed, especially in the anterior gray horn, and at the same time there was extensive destruction of the nervous elements.

By studying the inflammatory process in serial sections from various levels of the cord we became convinced that foci in the cord with inflamed vessels corresponded to areas of inflammation in the pia mater at the same level. On the other hand, inflammation in the pia mater and in the fissures could be demonstrated without any inflammation having developed in the cord at the same level, or the latter inflammation would be in a very early stage. This goes to show that inflammation commences in the pia mater, with a probable simultaneous infection of the cerebrospinal fluid, and that it extends to the cord along the vessels. The inflammation reaches its greatest intensity in the anterior gray horns because they are supplied by the most numerous and largest vessels, and on account of the rapidly progressing degeneration of the ganglion cells, which also contributes to give to the inflammation its peculiar appearance.

Aside from the microscopic evidences of the initial meningitis, many of the symptoms with which the disease begins—rigidity in the neck and back, twitchings and severe pains in the trunk and limbs—tend to show that the meninges first are involved.

The inflammation, however, could also be demonstrated above and outside the cord. In the first place, cell infiltration could be found in the pia mater surrounding the medulla oblongata and pons, about the cerebellum, especially in its mesial portions, along the base of the cerebrum, about the basal vessels and nerves, and particularly along the Sylvian fossa. Finally, it could be traced, although less constantly, over the hemispheres, especially the central gyri, and also over the frontal gyri and the mesial surfaces.

There was also a more or less extensive inflammation in the brain substance. This was most pronounced in the medulla oblongata and pons. Here it was found especially in the gray matter about the fourth ventricle, in the substantia reticularis and in nearly all the cranial nerve nuclei located here, always closely related to the vessels and associated with inflammation in the meninges. The inflammation was concentrated in a conspicuous manner around the vessels, passing from the anterior surface through the raphe backward to the gray substance, and about the large vasa nuclearia which pass obliquely backward and inward and which also end in the substantia reticularis, as well as in the numerous smaller vessels which chiefly supply gray matter. The white matter, on the other hand, was much less or not at all involved, for instance, the pyramids, the olives, the crura, the anterior part of the pons, etc.

In nearly all the cases examined (we always examined the entire medulla oblongata and pons by means of frontal sections divided in eight or ten slices) all the cranial nerve nuclei were attacked by the inflammation, the intensity often decreasing forward. As a rule, the gray matter around the aqueduct of Sylvius with the third and fourth nerve nuclei were also involved.

As a general rule, the inflammation was less intense in the medulla and pons than in the cord, the infiltrations more circumscribed and the destruction of the ganglion cells less considerable. Here also the inflammation sometimes had a hemorrhagic character. Sometimes we found considerable edema at the bottom of the fourth ventricle, particularly in cases in which the symptoms had pointed to a serious affection of the medulla oblongata, "acute bulbar paralysis." The cerebellum usually presented few evidences of inflammation, and only in the central portions which were connected with the medulla and pons.

In the basal ganglia there were frequent signs of inflammation scattered through the various ganglia, the most numerous and largest infiltrations being found in the posterior portion of the optic thalamus. In large frontal sections, which included the basal portions of the cerebrum with the pia mater, the inflammation was found to extend particularly along certain vessels in their course from the base through the anterior and posterior perforated spaces and from the Sylvian fossa. The white substance of the internal and external capsules was generally involved to a lesser extent. On the whole, the inflammation in the basal ganglia was less constant and less pronounced than in the medulla oblongata, and much less than in the cord. It was chiefly characterized by scattered perivascular infiltration and slight degeneration of the ganglion cells.

Finally, in some of the cases we also found inflammation in certain parts of the cerebrum, always in connection with inflammation of the pia mater. Very frequently there were small perivascular infiltrations in the fossa of Sylvius, particularly in some gyri belonging to the temporal lobes and sometimes also in the frontal lobes. More interesting were the rather numerous and larger infiltrations in the cortex of the central gyri along their entire extent; these were found in a few cases. These infiltrations were partly diffuse and slight degeneration of the ganglion cells could be seen. Sometimes similar infiltrations were found in the frontal gyri, especially posteriorly and on the mesial surface, much more rarely in the outer lobe and gyri.

As our material was large and the results in all essentials uniform, we feel justified in making the following statement:

In a severe or fatal case of acute poliomyelitis we, as a rule, have before us a diffuse inflammation of the entire cord with its pia mater, of the entire medulla oblongata and pons, of the basal ganglia and often also of the cortex of the brain to a greater or less extent, always in connection with similar inflammation in the pia mater.

But what are the conditions in the milder cases of acute poliomyelitis with no cerebral or bulbar symptoms at the onset, in which the disease at once showed itself by peripheral paralyses? Is the inflammation in such cases localized in the cord only?

We have examined four such milder cases in which death occurred in the stage of repair, due to various complications, some time after the onset of the disease, and in which there were only limited paralyses. In these cases we succeeded by special methods, such as Busch's modification of Marchi's method for demonstrating fat granule cells, in demonstrating the existence of degenerated or destroyed nervous tissue to a greater extent than we had expected. Besides, in the diseased areas in the cord we could demonstrate the existence of numerous fat granule cells in the walls of blood vessels in the medulla oblongata, occasionally in the basal ganglia and in a few places in the cortex of the brain. This shows that acute poliomyelitis also in these milder typical cases from the onset may be a much more extensive inflammatory process than it has been supposed to be. Hence, there is no reason to draw a sharp line between the milder cases and the more serious and fatal ones.

It must be admitted that such a view of the anatomic extent of the inflammatory process in acute poliomyelitis introduces a certain element of confusion into our conceptions of the disease which we have hitherto looked on as a well-defined clinical and anatomic picture. It might be said that the whole term "acute poliomyelitis" ought to be dropped, as the inflammation actually extends far beyond the gray matter of the cord. It does not seem to us that there is sufficient reason to attempt to abandon this well-established term, which also represents a well-defined clinical picture. One need only bear in mind that acute poliomyelitis is a clinical term designating a disease which results in atrophic paralysis due to destruction of certain portions of the gray matter of the cord. At the same time, it must be remembered that the disease at first is a diffuse inflammatory process in large parts of the central nervous system with involvement of the corresponding pia mater also outside of the cord. With these reservations we believe that there is every reason to retain the old term "acute poliomyelitis."

One of the principal objects of our investigations has been to learn if in the epidemics of acute poliomyelitis, along with the numerous typical cases with atrophic paralyses, there have not also been "atypical" cases with other symptoms and dependent on other localizations in the central nervous system. In other words, would it be possible to demonstrate clinically and anatomically transitional forms between this disease and such diseases as acute myelitis, encephalitis, polyneuritis, cerebrospinal meningitis?[9]

Among the poliomyelitis cases we have already mentioned "abortive cases," but have had no opportunity for the anatomic investigation of such cases. In the various epidemics, cases of ascending paralysis or Landry's paralysis have been described, frequently followed by bulbar symptoms, with death from respiratory failure. Anatomically, it has been generally believed that we were simply dealing with an extension by continuity of the inflammatory process from the cord to the medulla. This idea is entirely erroneous, however, as such paths of communication do not exist aside from the central canal, which is not found to be affected. As has been stated, the cord and medulla are infected from the meninges along the vessels and in a great many places simultaneously, and the appearance of the paralyses in a certain order is accidental. It must also be emphasized that the term "Landry's paralysis" is only a clinical term, a symptom-complex without any uniform anatomic foundation, at times an inflammation, at times a degeneration, at times necropsy findings have been negative. At any rate, a large percentage of the cases of Landry's paralysis have been shown to be inflammation,[10] of a nature and appearance like that in acute poliomyelitis, often very severe, with extension to the medulla oblongata. This coincides with our experience from the epidemics in Norway in the last few years. From an anatomic point of view we then have no reason to group these cases by themselves.

As has been stated, in fatal acute poliomyelitis inflammatory changes in the medulla oblongata and pons are constant. This, however, has not prompted us to emphasize this localization or to make any change in or addition to the terminology. The question now is: Are there not also cases in which both the clinical and anatomic findings point to a chief localization in the medulla oblongata? In other words: In addition to the cases of acute poliomyelitis, have there not also been cases of "acute bulbar paralysis," "myelitis bulbi," or "polioencephalitis inferior acuta"? In the various epidemics there have been not a few cases in which the symptoms have pointed to a chief localization of the inflammatory process in the medulla oblongata. We have had opportunity to examine four such cases with chiefly bulbar symptoms, such as severe dyspnea and cyanosis, difficulties in mastication, deglutition and articulation, paralyses of the soft palate, face and eye muscles, etc. The cases were as follows:

CASE 1.—Man, aged 38; duration of illness eight days.

CASE 2.—Boy, aged 4, died after two days; developed a slight paralysis in the right arm.

CASE 3.— Man, aged 18, ill for eight days with poliomyelitic and later pronounced bulbar symptoms.

CASE 4.—Woman, aged 28, died after three days of ill-defined illness, with meningitic, bulbar and some poliomyelitic symptoms. To some extent the course of the disease was very rapid and the diagnosis not clear.

It was found that we were here dealing with a very intense inflammation of the medulla oblongata, pons and the adjacent parts above, with considerable destruction of gray matter and often considerable edema. But this inflammation had exactly the same appearance as that in the cases of acute poliomyelitis; often it was decidedly hemorrhagic, and at the same time there was always a similar inflammation in the cord, although somewhat less intense than usual, and not always affect-

9. The idea of the close etiologic relationship between diseases with different localizations in the nervous system is far from new. It has chiefly been maintained by clinicians, such as Strümpell and Taylor and others.

10. This has been confirmed by investigations made in America, among others by Bayley and Ewing, Jour. of Nervous and Mental Dis., 1896; Bassoe, Journal of Infectious Diseases, November, 1905.

ing the entire cord. Hence, anatomically, these cases do not differ materially from the ordinary ones of acute poliomyelitis, the difference only being in the distribution and degree of intensity of the inflammatory process, but as the clinical picture presents considerable difference, it appears justifiable to place them in a separate group, as acute bulbar paralysis or polioencephalitis inferior acuta.

Are there also observations of cases of circumscribed inflammation in the cord, i. e., of transverse myelitis? Such a case we have had the opportunity to examine anatomically.

A woman, aged 21, died after an illness of four days with very severe symptoms; total paralysis of both legs and arms, paralysis of bladder and rectum and, finally, paralysis of respiration.

In the tenth and eleventh dorsal segments of the cord there was a markedly swollen, softened hemorrhagic focus and, microscopically, an extremely intense inflammation both in the gray and white matter with edema, hemorrhages, etc. But there was also a diffuse inflammation throughout the entire cord and in the medulla oblongata. If death had not occurred so early there is every reason to believe that a great destruction in a circumscribed part of the cord with symptoms of transverse myelitis would have developed.

We believe that this case represents a transitional form between ordinary myelitis and poliomyelitis, and that certain cases of myelitis should pathogenetically and etiologically be placed in a class with ordinary acute poliomyelitis. In this class of cases, however, there is a marked tendency to limitation of the process and destruction of gray matter alone, particularly that of the anterior horns.

Very difficult also from the clinical standpoint is the question whether or not during epidemics of acute poliomyelitis there have been cases of acute multiple neuritis. The differential diagnosis between these two diseases is exceedingly difficult, especially when we consider what we believe to have proved that the meninges are involved in ordinary poliomyelitis, which may cause a series of clinical symptoms, particularly pain in body and limbs, difficult to distinguish from those of polyneuritis.

Here our anatomic investigations have given only negative results. In a whole series of cases of acute poliomyelitis we have examined the peripheral nerves, generally from the brachial and lumbar plexuses and the vagi. The only alteration we could demonstrate is parenchymatous degeneration in a number of nerve bundles corresponding in location and intensity to the existing degeneration of ganglion cells in the cord. We must therefore look on these parenchymatous changes as purely secondary. In no case with or without affection of the cord have we been able to discover signs of an acute interstitial infiltrating neuritis with parenchymatous changes, i. e., an inflammatory process analogous to that of acute poliomyelitis. On the whole, it appears that the hypothesis of the inter-relation of and transitional forms between acute poliomyelitis and acute polyneuritis, advanced chiefly by clinicians, has little support. There is, at least, no anatomic proof.

We now come to consider the cases of encephalitis. As has been mentioned, in a number of cases of acute poliomyelitis we have been able to demonstrate an inflammation both in the inner and outer portions of the brain. The infiltrations were particularly frequent in the basal ganglia in connection with inflammation at the base of the brain along the aqueduct of Sylvius and at the bottom of the fourth ventricle. There was regularly a superior acute polioencephalitis, as well as an inferior acute polioencephalitis. Similar changes were found in certain parts of the convexity, both in the pia mater and in the brain substance, so we had before us genuine encephalitic changes. This inflammation, however, was much less pronounced than that in the cord and medulla, and so far as symptoms are concerned, was entirely overshadowed by these localizations, so there is no clinical reason for speaking of encephalitis in this connection. Anatomically, however, an actual meningoencephalitis of slight degree existed.[11]

However, we have had opportunity of examining cases of encephalitis, or rather meningoencephalitis occurring in the same locality and simultaneously with cases of poliomyelitis; and for this reason, and because the inflammatory process in nature and extent corresponded to that of acute poliomyelitis, it can be classed with certainty with the latter disease.

One case concerned a man, aged 39, who presented symptoms of meningoencephalitis, namely, fever, headache, stiff neck, vomiting, convulsive seizures, clouded consciousness, some rigidity of the limbs. Finally coma and death occurred after twelve days' illness; there were no paralyses or pareses.

At the necropsy aside from diffuse hyperemia of the entire central nervous system there were softened encephalitic foci in the right temporal lobe and in the gyrus fornicatus of both sides. In addition, the inflammation extended, though with lessened intensity, to the basal ganglia, along the aqueduct of Sylvius, through the entire medulla oblongata, and was even demonstrable in the upper portion of the cord. The inflammation had the same characteristics as that of poliomyelitis, also in this particular that there were cellular infiltrations in the pia mater.

The case certainly must be considered closely related to poliomyelitis, and it is of great interest as it furnishes anatomic proof of the existence of transitional forms between the acute infectious encephalitides and poliomyelitides, as has been maintained in various quarters, chiefly by clinicians, such as Medin, Strümpell, and Looft, but scarcely previously proved.

What is the relation between acute poliomyelitis and epidemic cerebrospinal meningitis? Does anything speak for a common etiology? Have transitional forms been demonstrated? Have the two diseases been simultaneously demonstrated in the same individual?

Our anatomic investigations furnish no support for such relationship. Admittedly acute poliomyelitis is associated with a meningitis, but this is only microscopically demonstrable as a diffuse cellular infiltration in the pia mater. Purulent infiltration of the leptomeninges was never observed. For comparison we have also examined cords from cases of suppurative and tuberculous cerebrospinal meningitis without finding an inflammatory process analogous to that of acute poliomyelitis, although occasionally a beginning cellular infiltration of the cord substance was found. Exact and systematic examinations of the cord from epidemics of cerebrospinal meningitis are, however, lacking.

From an epidemiologic point of view there is not much to speak for a common etiology. Epidemics of the diseases are usually separate, not simultaneous or mixed. Epidemics, in which both diseases occurred together, have been described, chiefly in America, but as anatomic investigation is lacking and the clinical diagnosis often

11. Cases corresponding anatomically in all essentials with ours have been reported in America under the name of "Polioencephalomyelitis" by Sherman and Spiller, Proc. of the Path. Soc. of Philadelphia, December, 1899; and Alice Hamilton, Jour. of Med. Research, vol ii, 1902.

is uncertain and difficult, most of these statements are not convincing.

It now remains to make brief mention of the etiology of acute poliomyelitis. There can be no doubt that acute poliomyelitis is an infectious disease dependent on a specific micro-organism. This at least is true of the epidemic cases, even if the possibility must be admitted that the sporadic cases may be due to a different cause. What is this virus? In the fall of 1905 Geirsvold[12] succeeded in demonstrating in the cerebrospinal fluid and in the throats of patients with acute poliomyelitis, in a whole series of cases, the same micro-organism. It was a diplococcus, or tetracoccus, with certain morphologic and cultural characteristics. It differed from Weichselbaum's meningococcus. This micro-organism was found in three of our cases in the cerebrospinal fluid, but was lacking in the majority of the cases. We also made one attempt to cultivate the organism in the spinal cord substance, but there was no growth nor were we later able to demonstrate organisms of any kind in sections from the piece of cord.

In all our cases we have examined for bacteria in histologic specimens from the cord, medulla oblongata, etc., but all our efforts have been in vain, although we have used all common methods, such as the Loeffler, Gram and Giemsa stains, weak carbol-fuchsin, thionin, toluidin blue, at times avoiding the use of alcohol in the fixation and dehydration. We believe it at present to be impossible to speak definitely on the question of the specificity of the organism demonstrated by Geirsvold, the more so as Geirsvold himself makes certain reservations.

The frequent demonstrations of the same microbe is noteworthy, however, and further investigations are indicated. The failure to demonstrate micro-organisms in sections does not in itself argue against the presence of micro-organisms in the inflamed areas. We are justified in assuming that we are dealing with an organism which it is difficult to demonstrate. It seems to die rapidly; after from ten to fourteen days the cultures from the cerebrospinal fluid regularly became sterile. Experience also shows that micro-organisms die rapidly in the nervous system, as, for instance, has been shown to be the case in epidemics of cerebrospinal meningitis. Here Weichselbaum's meningococcus is found in large numbers in the exudate and is easily cultivated, but it has been shown, and here we speak from personal experience, that this organism is difficult to find in sections, especially when the necropsy has not been performed immediately after death. It is possible that a similar condition may exist in the case of the organism of poliomyelitis.

It is our opinion that poliomyelitis is due to a specific virus, and, further, that we are not dealing with the remote effect on the central nervous system, but that the organism is present in the nervous system itself, in the meninges, in the cerebrospinal fluid and probably in the nervous substance, and that it is the direct cause of the extensive inflammation. As has been stated, many facts favor the assumption that the atrium of the infection is in the digestive tract and that the nervous system becomes infected either by the lymph stream, along vessels and nerve trunks (though no anatomic proof of this exists) or, what appears more likely to us, by way of the blood, which also appears to be probably the case in cerebrospinal meningitis.

12. Epidemisk Poliomyelit. Bakteriologiske undersögelser. Norsk Magazin for Laegevidenskaben, 1905, No. 12.

GASTROSCOPY: REPORT OF ADDITIONAL CASES.*

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The principal object of this paper is to report such cases as have presented themselves for gastroscopy since my paper[1] read before the New York Academy of Medicine in January, 1907. Discussion with different physicians and expressions of surprise by spectators at different demonstrations have shown that I had not sufficiently emphasized certain important points, and it is well to speak of them here.

THE EXPLORABLE AREA.

There is a widespread impression that a solid tube passed through the esophagus is held rigidly in position and that we can view through it only such small area of the gastric mucous membrane as happens to lie opposite its extremity. To show how erroneous this view is I present a radiograph (Fig. 8) made in the office of Dr. Russell H. Boggs of Pittsburg. The plate contains two exposures, one with tube lying to the left, another after it had been moved to the right. This shows the range of motion that may be secured by moving the head from side to side. That this case was an extreme example of dilatation and ptosis, and that the normal stomach would not permit such deep introduction of the tube, is not pertinent to our present consideration. The limitations on motion are imposed by the shape and size of the stomach and not by any rigidity of the pharynx, esophagus or diaphragm. It is impossible to show graphically the extent to which the explorable area may be increased by skilful palpation of the abdominal region, particularly if a tumor be present, but experience shows that this is a very useful maneuver. The explorable area varies in the normal adult stomach from one-half to three-quarters of the total mucous membrane, the field being considerably larger in infancy, dilatation or prolapse.

TECHNICAL DIFFICULTIES.

Since it has long been held impossible to pass a straight rigid instrument into the stomach, it is perhaps not remarkable that the procedure is still assumed to be an exceedingly difficult one. There is a distinct disposition to regard gastroscopy as an exhibition of individual dexterity rather than the demonstration of a practical clinical method. If this error involved nothing more serious than an unmerited compliment it might be allowed to pass with bare denial. Since it involves, however, a limitation of the usefulness of a valuable method, more detailed statement may be given. I can not deny that I have encountered many difficulties in gastroscopy, but wider experience fully confirms my previous opinion that they are not inherent, but due to faulty technic. Careful attention to two points eliminates nearly all of them.

The first of these is that profound anesthesia is essential. Pain is not great and would not demand general anesthesia. Inspection of the esophagus may well be preferred under cocain, but when a tube enters the stomach, straining and retching are uncontrollable, annoying and dangerous. Convenience and safety alike demand that anesthesia be complete. The difficulties of

* Read in the Section on Laryngology and Otology of the American Medical Association, at the Fifty-eighth Annual Session, held at Atlantic City, June, 1907.

1. Medical Record, April 6. 1907.

anesthesia are considerable, as the anesthetist works at a great disadvantage after the tube is once started. For this reason and also because relaxation rather than analgesia is our object, chloroform would be more advantageous than ether. A man who uses chloroform under any circumstance should choose it here. I have, however, almost invariably chosen ether for the reason that I am most unwilling that the harmlessness of gastroscopy shall be obscured in this present stage by any death from anesthesia. Gastroscopy can bear with ease responsibility for all the deaths it will ever produce, either by vagus reflex, perforation, hemorrhage or otherwise, but it would be most unfortunate if we had to explain any accidentally associated death.

POSITION.

The second point is the position of the patient. In all work success demands that the mouth, pharynx and esophagus be brought into a straight line, not by a crowbar-like action of the tube, but by holding the head steadily in extreme extension with the mouth widely open. Not only does lateral pressure add to the operator's difficulty, but it also entirely prevents any sense of what the point of the tube is touching. Trial with an unanesthetized patient will show that if the head is simply allowed to hang over the edge of the table not only is an unnecessary strain thrown on the ligaments of the neck, but full extension is not as well secured as by proper supports of the head.

It is further to be remembered that no mouth gag is absolutely self-retaining and a slight slip while the tube is in position may have undesirable consequences. For this reason it is best to detail a second assistant to hold the head and steady the mouth gag, impressing him with the importance of the matter and his entire responsibility therein. To carry him out of the operator's way it is necessary that he shall hold the head at arm's length, and to hold it in this position for fifteen or twenty minutes a support is necessary. The weight of the head is so little that the matter seems easy, but if the assistant's arms are unsupported about the time the most critical point of the examination or operation is reached his muscles will be trembling. Nor is it possible to rest him by any shift of position after the tube is started.

After many unsuccessful trials it has been found that the best position is as shown in Figure 9. The patient is drawn forward until the tops of his shoulders clear the table by from four to six inches, and the mouth-gag is inserted on the left side. The assistant is placed on the right side of the patient's head on a stool of appropriate height, as though on a side saddle, his right leg beneath him in the kneeling position, his left foot supported on a stool twenty-six inches lower than the top of the table; his right forearm is passed beneath the patient's neck, supporting it; his right hand grasps the mouth-gag, drawing it strongly at or in front of the bregma, bending it backward and exerting a certain degree of upward pressure. The exact proportion of backward and upward pressure can not be described, but it is readily appreciated on trial, especially if the assistant has actually experienced the differences in sensation when the head hangs free and when it is properly supported in extreme extension.

The foregoing points having received attention, certain difficulties remain. They lie, however, altogether above or opposite the cricoid cartilage and are surmountable with slight practice by any one who is capable of learning laryngeal intubation. Thorough and systematic search of the explorable area by introducing the tube into one fold after another, missing none, demands something of experience and more of patience, but these will very readily be yielded by the enthusiasm of one who has for the first time perceived a beautiful picture of the living membrane as obtained at the first introduction of the tube.

REPORTS OF CASES.

CASE 1. *History.*—A. N., aged 39, admitted to the Western Pennsylvania Hospital, suffering from an attack of typhoid fever, which under the care of Dr. J. D. Milligan, ran a short course. Patient had complained for fifteen years of gastric symptoms consisting of pain, sharply localized in the epigastrium and not bearing any constant relation to the taking of food. A feeling of heaviness and distension after eating. Some nausea, but no vomiting. Moderate tenderness. For last nine months symptoms had been worse, pain more constant, and there had been much loss of weight. The Ewald test meal showed deficient digestion; hydrochloric acid diminished, but not absent. This history suggested to Dr. Milligan that numerous class of cases in which malignant disease develops insidiously after a long period of functional dyspepsia and he referred the cases for gastroscopy.

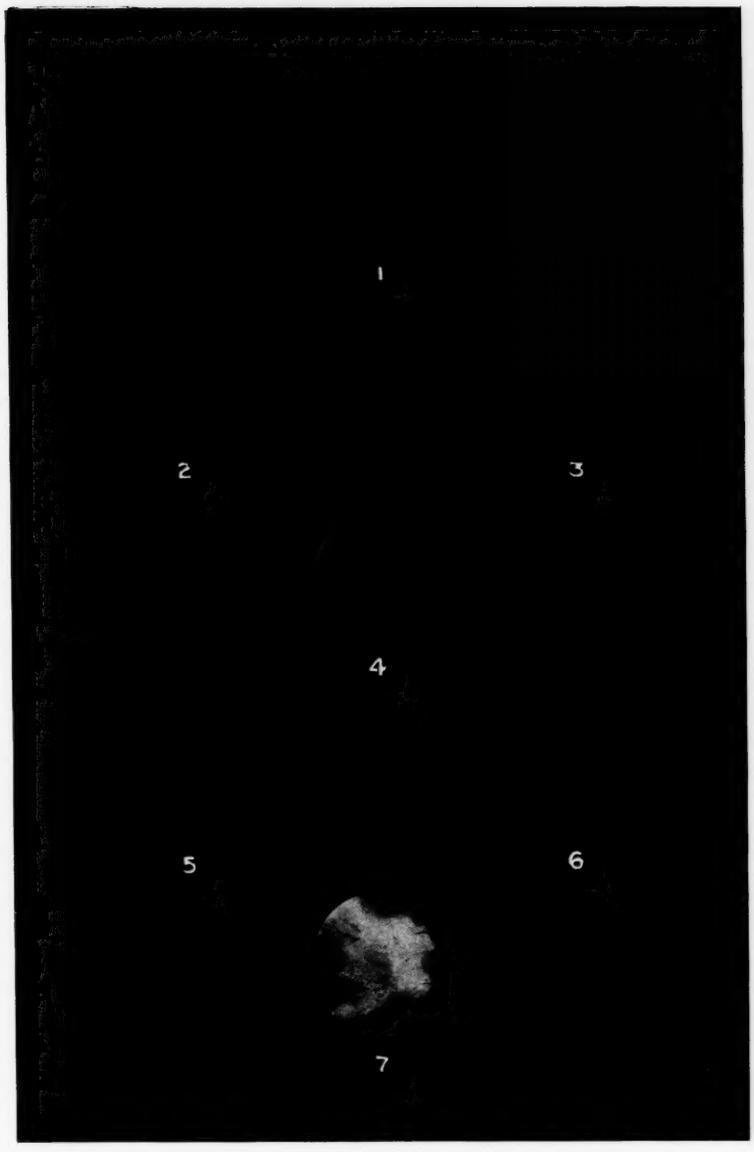
Gastroscopy.—At my request Prof. Gustav Killian passed the gastroscope with the same ease and precision that renders his bronchoscopic work a delight to the spectator. Though inspection of the stomach showed normally in gross appearance, this negative finding is, of course, subject to the limitation that it is not absolutely decisive. A cancer may be developing in the lesser curvature. This point that any negative finding is not absolutely decisive I must recognize as the one important limitation of usefulness of this method. I trust, however, that it will not destroy its usefulness any more than does the similar fact in regard to the ophthalmoscopic examination in brain disease, the lumbar puncture in meningitis, the sputum stain in tuberculosis, or the physical examination of the chest in children. The gastric mucosa was a delicate pink color, with a slightly mottled appearance at one point (Fig. 3).

CASE 2.—This will be reported elsewhere in greater detail as the removal of a foreign body by tracheoscopy. It is included here as a striking example of the harmlessness of gastroscopy.

History.—The patient was a child aged 1 year and 2 days. One month previously this child had swallowed a safety-pin which a skiagraph had shown high in the neck. The mother had been instructed to bring the child for further ray study, but neglected to do so and presented it at a public clinic at the Harper Hospital, Detroit, for extraction of the foreign body.

Gastroscopy.—From the absence of symptoms referable to the respiratory tract the pin was assumed to lie in the esophagus, which locality was accordingly searched first. On a negative result the tube was passed into the stomach and the most thorough examination made. All accessible membrane was gone over twice, a period of at least one-half hour being devoted to this proceeding. On account of the long duration of chloroform anesthesia the child was allowed to rest. Two hours later it was sitting up on its mother's lap, hungry, and could readily be amused to the crowing and laughing point. This constitutes the point of interest in the case, as it demonstrated that the most thorough gastroscopy I have ever made did not cause even transient soreness. Further radiographic study by Dr. Preston M. Hickey of Detroit indicated that the pin lay in the trachea, and it was recovered with some little difficulty by the upper bronchoscopic method. Two weeks later Dr. Hickey reported the child as in the best possible condition, having had no bad symptoms whatever. The stomachal mucosa, after the milk that it contained was pumped out, was of normal color and appearance, the folds larger, relatively to body weight, than in the adult. (Fig. 6.) The color became paler as the examination proceeded, presumably because emptied of food.

CASE 3. *History.*—P. A., aged 30, was admitted to the West-



FIGS. 1 TO 7.—GASTROSCOPIC VIEWS.

ILLUSTRATING ARTICLE BY DR. CHEVALIER JACKSON ON "GASTROSCOPY."

Pennsylvania Hospital Feb 2, 1907, service of Dr. John W. Boyce. The patient had been complaining for weeks of severe pain in epigastrium and left hypochondrium, not affected by eating. Examination after test meal showed no serious disturbance of digestion, but pain steadily grew worse in spite of treatment and patient seemed to lose ground. Dr. Boyce suspected that he might have an ulcer with anomalous symptoms, and as a matter of exclusion referred the case for gastroscopy.

Gastroscopy.—At his insistence chloroform was employed, which rendered introduction of the 70 cm. tube a matter of the utmost ease. The gastric mucosa was normal, throughout the explorable area, about two-thirds of the entire mucosal surface. He had in some way obtained food and the stomach was found to contain potatoes, meat and other unidentified materials. Fifteen minutes after these were pumped and vomited out, the gastric mucosa, which before was found to be a dark crimson (Fig. 1), was found to be a pale pink (Fig. 2).

CASE 4. *History.*—Mrs. T., referred by Dr. Weschler, complained of numerous and anomalous symptoms. She was found to have a cervical rib and a condition of laryngoptosis, very interesting, but not important to our present consideration.

Gastroscopy.—General anesthesia was given for direct inspection of the larynx, trachea and esophagus. During the latter proceeding the tube was introduced to the bottom of the greater curvature and the normal mucous membrane viewed widely without encountering any difficulties or adding anything to the severity of the examination.

CASE 5. *History.*—A. L., aged 21, launderess, was admitted to the Western Pennsylvania Hospital Jan. 12, 1907, service of Dr. K. I. Sanes. Complained of severe pain in epigastrium and lumbar region. The patient was of distinct splanchnoptotic type and her severest pain seemed to be connected with a movable right kidney. Medical and hygienic treatment proving ineffective, she was transferred to the service of Dr. J. Hartley Anderson, who, April 12, firmly anchored the offending kidney. The patient professed great benefit from this operation, but the epigastric pain continued.

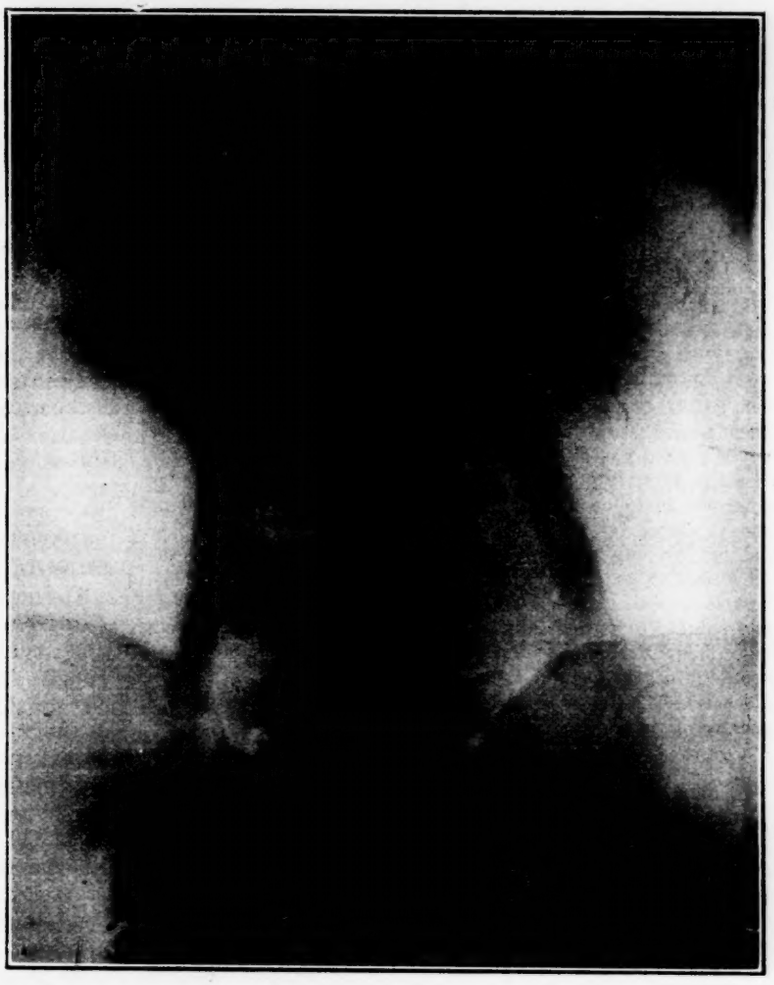


Fig. 8.—Radiogram of gastroscope in two different positions in a case of gastroptosis, the patient under ether. Coin locates the umbilicus.

Fig. 9.—Illustrating the best position for the patient in gastroscopy.

Gastroscopy.—She was referred by Dr. Anderson for gastroscopy, which was done at a public clinic at the Western Pennsylvania Hospital. In passing the gastroscope the lumen of the esophagus was not exactly followed, and much groping was done for the diaphragmatic opening. After the tube entered the stomach the patient's respiration became alarmingly shallow and feeble. An interested spectator whose opinion commands the highest respect considered this a vagus reflex. An assistant to whom the general care of the patient had been delegated feels certain that it was from an overdose of anesthetic. He points out that anesthesia was profound at this time; that we have never witnessed anything similar before, though gastroscopy has frequently been done with imperfect anesthesia when reflexes should be more readily excited. The tube was, of course, withdrawn and simple restoratives applied, and respiration promptly became normal. After a few minutes, relying on the opinion of my assistant, I again introduced the tube and completed a very satisfactory inspection of the stomach without unpleasant incident. If this were a vagus reflex it was exhausted by the inhalation of oxygen and a very brief period of waiting. No additional anesthesia was necessary through a deliberate inspection of the stomach. As this case was assumed to be a pure neurosis, I was surprised to seek a dark purplish, mottled appearance (Fig. 4) as the tube mouth moved from left to right along the greater curvature, widening and darkening as the tube moved. The water

color drawings give a fair idea of the appearance. After about two inches of travel from the point where the discoloration was first noticed, the extreme right limit of exploration with the aid of external manipulation was reached (Fig. 5). Antero-posteriorly the extent was also about two inches. Prof. Gustav Killian, who was present, examined this area and expressed the opinion that it was not normal, though neither he nor I could make a positive diagnosis.

CASE 6. *History.*—Male, aged 23, was referred by Dr. Aaron of Detroit, Mich., with the following history: For fifteen years he had had constant distress, worse after taking food. Flatulence was constant, hyperchlorhydria 110; there was no melena and motility was normal.

Gastroscopy.—This was done under ether at the Harper Hospital, May 24, 1907. Anesthesia was imperfect and the case can not be considered an easy one. Yet when the tube had been passed below the cricoid cartilage, Dr. Aaron, who had never seen a gastroscopy and whose interest in the stomach diseases is mainly from the clinical side, found no difficulty whatever in following the lumen of the esophagus and passing the tube clear to the greater curvature of the stomach; nor did he find any difficulty in focusing his vision through the long tube so as to get a beautiful view of the stomach. The gastric mucosa was in a state of chronic inflammation, and at one point I saw what seemed to be a scar. The mucosa was pale, in an irregular area about 2 cm. (¾ inch) in diameter near the edges a few dilated capillaries were visible. There did not seem to be any thickening or infiltration. The appearance is well shown in the color drawing (Fig. 7).

DISCUSSION.

PROF. GUSTAV KILLIAN, Freiburg, Germany, said that in 1868, in Freiburg, Kussmaul made a gastroscopy, introducing a tube. Professor Killian has that tube; it is a historical instrument. Many others have introduced tubes through the cardia. He thinks that the first to attempt to give a method of gastroscopy was Mikulicz in 1881, but his tube was not straight; it had an angle. Rosenheim of Berlin also tried to make a gastroscope; his tube was straight. About ten years ago Rosenheim attained success with the application of a gastroscope, and now we have a new one from Dr. Jackson. The first case in which Professor Killian saw a gastroscope demonstrated was in the case of a woman whose head was hanging over the edge of a table. Dr. Jackson placed his gastroscope, a long tube, in Dr. Killian's hand and asked him to introduce it. For a moment Professor Killian was afraid; then he took the tube and inserted it very easily; only in the cardia was there resistance and he had not the courage to go further, so he asked Dr. Jackson to do it. Dr. Jackson introduced the tube with a very little pressure and Professor Killian could easily see the interior of the stomach. In the next case, he was successful in introducing the long tube and placing it in the interior of the stomach. If there is an ulcer in the stomach, not too small, he thinks that one must find it. It has been thought that a tube could not possibly be brought into contact with the stomach walls so that we could do more than see the wrinkles on the sides, but Dr. Jackson has shown that it is possible to bring the stomach into direct connection with the tube.

Autointoxication in High Altitudes.—Sewall, in *Colorado Medicine*, states that recent pathologic chemistry has taught us that the critical symptoms of many of the diseases with which we have to deal are due to intoxication, with an excess in the body of waste products which the body is powerless to oxidize to their normal condition as excreta. Zuntz and others, Sewall states, have developed the extraordinary paradox that though at very high altitudes the actual consumption of oxygen is greater than on the plains, there is more or less marked accumulation of suboxidized "fatigue" products in the circulation which irritate the nerve centers, and in turn affect metabolism. The production of these substances is greatly augmented by physical exercise, is subject to great individual differences, and is done away with after thorough acclimatization.

CONGENITAL SQUINT.*

WILLIAM CAMPBELL POSEY, M.D.
PHILADELPHIA.

Like all other phases of the muscle problem, that of which I treat in this paper can scarcely be said to be solved; indeed, it may well be doubted if a distinct discrimination is always made between this variety of strabismus and concomitant squint. It is not easy in infants and young children to detect a limitation in the movement of an eye, which is the usual diagnostic point of difference between congenital and concomitant squints, though it will be remembered that while in concomitant squint the deviation of the ocular axes persists as the eyes are moved through the different meridians of the field of fixation, the degree of the deviation remains constant, and the angle of the squint is always the same, whereas in congenital squint the degree of the deviation and the angle of the squint vary according as the eye with the defective muscle or muscles is moved in the direction supplied by those muscles.

And, again, even though the paralytic nature of the squint be detected, it is often imputed to a postnatal cause, cognizance not being taken of the fact that, though the conditions occasioning the squint may be present at birth, the actual deviation may not manifest itself until weeks or months later. For the ocular movements in all infants are at first purposeless and incoördinated, and it is only later when the eyes attempt to converge in response to the impulses of an educated center that the flaw in the mechanism becomes apparent; moreover, in deviations due to central causes, the cerebral lesions, while congenital, often require further development to occasion actual paralysis of the eye muscles.

In addition, however, to the limitation of motion which is present in congenital squint, there are other ways of discriminating between it and concomitant strabismus. In the latter, as is well known, both primary and secondary deviations are equal, while in the former, though the rule is not invariable, the secondary deviation is often greater than the primary, just as is observed in cases of acquired palsy of the eye muscles.

According to Kunn, the secondary contraction which is present in acquired palsies is absent in the congenital, though it was Graefe's experience that, while this is usual, it is not invariable, and secondary contraction may be absent in acquired and present in congenital paralysis. Corresponding to this absence of contraction is the fact that there may be either no deviation in the primary position or one contrary to what would be expected. Such anomalous position of the eyes in congenital paralysis seems often, however, to be due to complications which would produce a like result if the paralyses were acquired.[1]

As other differential points in diagnosis may be mentioned the absence of involvement of the iris and ciliary body in congenital palsies, and the reaction of degeneration in the levator in acquired cases when ptosis is present.

Finally, I have often been aided in my diagnosis of congenital squint by the detection of nystagmus in this class of cases, a symptom which is usually absent in

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*Read in the Section on Ophthalmology of the American Medical Association at the Fifty-eighth Annual Session, held at Atlantic City, June, 1907. About half of the article and its illustrations are omitted for lack of space. The entire article appears in the author's reprints and in the Transactions of the Section.

1. Duane: The Eye and the Nervous System, edited by Posey and Spiller, p. 224.

concomitant squint, and by the good vision which is frequently binocular in this variety of squint, lowered vision in one eye being, on the other hand, one of the essential features of concomitant squint.

In congenital squint there is no suppression of the image, and, though diplopia may be present at first, it is soon lost.

In congenital squint both eyes are employed at times binocularly in the parts of the field of fixation where this is possible, or monocularly and independently of one another, just as is the case in alternating strabismus.

While, when a distinct and accurate subjective orientation is required, rather than a clear perception, the normal eye, even though it possesses lessened visual acuity, is employed exclusively, it is a matter of experience that under ordinary circumstances, even in those cases where acuity of vision and the refractive state of both eyes are alike, the paretic eye is used for fixation, the normal eye appearing in secondary deviation. Indeed, Kunn has reported a few cases in which this was observed even when the vision in the paretic eye was much reduced.

It must be noted, too, that the normally innervated eye may forget how to execute proper subjective orientation as a consequence of its having been held in a state of deviation, not by an effort of the will, but in conjugate relation to the paretic muscle of the fellow eye.

Of considerable moment is the persistence of secondary contraction in the antagonistic muscle even when the primary paralytic affection completely or partly retrogresses, the same cause which is active in producing secondary contractions preventing restoration to a normal condition, even when there is a probability of such restitution. Indeed, the contraction of the antagonistic muscle following paralysis may increase independently in cases where the primary paretic affection is progressing towards recovery.

By reason of this alternation in fixation of the sound and deviating eye and secondary contractions and deviations, the detection of the initial deviation is always irksome and, in conjunction with the difficulty which attends the examination of young children, renders the diagnosis of congenital palsy one of the most perplexing problems in ophthalmology.

It is evident that the same measures which are appropriate for the detection of a faultily acting muscle or group of muscles in an adult can not be employed in young subjects; subjective tests are often impossible, and many of the objective tests impracticable. Diplopia can not be elicited and the various tests which depend on the nature of the double vision are useless. In like manner, the parallax test can not be depended on, nor can the Maddox rod be utilized. As a rule, recourse must be had to purely objective methods, chiefly in observing the movements of the eyes through the various meridians, first in binocular fixation and, secondly, in monocular, and the observer will often have an opportunity to display much ingenuity in the performance of these tests, and will be rewarded according to his patience, skill and quickness of observation.

In making the examination, all persons or objects which might serve to distract the attention of the child should be removed, and with the subject seated before a window, and with the movements of its head properly restricted by the parent or an assistant, the examiner, provided with a toy, or, as is my custom, with a small red electric light, should deftly and quickly move the object through the various meridians while he notes the character of the ocular movements. After these excursions have been studied, although not feasible at times, a screen should be brought alternately before either eye, and the character of the deviation behind the screen noted, and an approximation made of the relative extent of the primary and secondary deviations. Before the head of the child is secured, a valuable hint as to the nature of the palsy may often be obtained by noting the position which the head assumes when the eyes fix the examination objects. While this method of detecting the ocular movements is often extremely unsatisfactory, and is rarely accurate or convincing, the diagnosis of the faulty muscle or group of muscles can usually be established only in this way.

Although designated by some "congenital palsy," the term "congenital squint" is to be preferred in describing the class of cases under discussion, for not all of these cases are paralytic. Briefly stated, the causes of this variety of strabismus may be either central or peripheral, the former occasioning the deformity by innervational disturbances, the latter by structural anomalies.

Among the central or innervational causes may be mentioned aplasia of the nuclei of the nerves or of the nerves themselves supplying the muscles. Wilbrand and Saenger[2] have studied the region of aplasia of the oculo-motor nucleus in a case of double congenital ptosis. The facial, abducens and trigeminal nuclei, as well as their intermedullary roots, were normal, but in the oculo-motor nucleus on the right side and especially in the large cells of the lateral nucleus there was a considerable reduction in the number of ganglion cells. The cells, however, which were present were normal, inflammatory and degenerative changes being absent, the condition being an aplasia of the oculo-motor nuclei in its true sense. Aplasia of the nuclei, however, must be differentiated from the degeneration which takes place in these centers and which has been described by Möbius under the name of "infantile nuclear degeneration," and from the allied condition of degeneration of the nuclei supplying the ocular muscles which occasions the clinical syndrome designated as "chronic ophthalmoplegia externa." Palsies arising from these sources can not be said to be congenital, as they develop after birth. The differential diagnosis between these and true instances of congenital palsy of cerebral origin is, however, obscure, the more so as it sometimes happens that cases in which palsies of the eye muscles are present at birth as a consequence of a faulty development of the orbit, manifest cerebral complications later on in life.

It is not necessary, however, to go further into the causes which operate in the production of these prenatal palsies. Those interested may find an excellent exposition of the subject by Mills.[3] It will suffice to say that traumatism, infectious diseases, fright and other maternal impressions, may act through the mother. Not a few of the cases are due to developmental arrests, under which circumstances, according to Mills, the brain fails to develop because it lacks embryonal potentiality.

According to Bernheimer[4] disturbances in the development of the eye and its appendages may occur at any stage of gestation, and may not rarely be attributable to primary diseased conditions of the parents at the time of conception.

The tendency of a defect in the ocular motility to be

2. Die Neurologie des Auges, p. 89.
3. Diseases of the Nervous System, p. 614.
4. Graefe-Saemisch, 2d Ed., xxxix, p. 33.

transmitted by heredity is well recognized, and this may be remarked in successive generations or under atavistic conditions. In some families the defect may appear through several generations only in the males, while in others it may appear in the descendants of both sexes. Under such circumstances the squint does not always conform to a fixed type, deviations in its character being noted in successive generations.

In addition to the actual defect in motility in the region of action of the ocular muscles as a consequence of heredity, it should be remembered, as Duane has pointed out, that heredity plays an important part in inducing the conditions, arteriosclerosis, syphilis, etc., which frequently lead to paralysis.

Congenital palsy is especially common among the Jews; of 19 cases of disturbed motility collected by Kunn, 11 being of this race.

Among the peripheral causes which may occasion congenital palsy may be mentioned the following:[5]

1, Absence of the muscle; 2 replacement of the muscle by a more or less inelastic cord of connective tissue; 3, underdevelopment of the muscle; 4, abnormal course and insertion of the muscle.

Fig. 1.—(Case 6.) Paresis of both superior and right rectus externus muscles. Showing torticollis; head held in oblique position, right side of face presenting. Gaze directed to extreme left. O. S. fixing and O. D. deviated up and in.

While in all probability the sublying condition in many of these cases is associated with some disturbance in the embryonal formation of the eye muscles,[7] in nearly all there is evidence of faulty development of the orbit itself. Actual measurement will reveal unequal dimensions in the two orbits, and a comparison will often show that one is on a higher plane than its fellow.

Further investigation discloses that the asymmetry of the orbit is dependent on other abnormality, for the skull in such cases will frequently be found to be misshapen; a misshapen skull, an abnormally developed orbit and faultily inserted and anomalous muscles being the sequential factors in the causation of many of these cases. Lesser degrees of malformation occasion but a *tendency* toward deviation in the optic axes and are the sublying factor in so-called heterophoria, the difference in the deviation being one of degree only, and, while the greater deviation occasions more marked and disturbing conditions in the musculature of the eyes and in the muscles of the head and chest, the chain of causes evoking them is the same.

In his recent book, Stevens dwells at length on the importance which the development of the orbit has on the equilibrium of the muscles of the eye, and it is unnecessary to refer to the many observations which have been made by others on the influence which the form of the orbit has on the refraction. In most of the cases of congenital squint I have observed there was some departure from the normal, either in the shape of the skull or at least of the orbits, and there were but very few palsies which occurred in perfectly developed and otherwise normal individuals, stigmata of degeneration of some kind being nearly always visible. The most striking demonstration of this association was seen in three sets of twins, members of different families. The skulls of all six were under sized and otherwise misshapen, and the bones of the face were underdeveloped. Convulsions had occurred in three, and in

Fig. 2.—(Case 6.) Showing almost perfect parallelism of visual axes (O. D. slightly divergent) after advancement of right rectus externus and tenotomy of both inferior oblique muscles.

Fig. 5.—(Case 9.) Overaction of right inferior oblique, secondary to paresis of left superior rectus muscle. Looking to the extreme left, O. S. fixing and O. D. tilting up and in as a consequence of overaction of right inferior oblique.

Fig. 6.—(Case 9.) Still looking to the extreme left, the tilting of O. D. up and in having been practically overcome by tenotomy of the right inferior oblique muscle. Dotted line shows incision made for tenotomy. Discoloration of sclera to temporal side is due to subconjunctival ecchymoses.

5. Duane: Loc. cit., p. 222.
7. Rider: A System of Ophthalmology, 1, 67.

ve out of the six there were very marked ocular deviations.[8]

Congenital squint is not a very common condition; thus, of 17,000 patients I have seen in my service at the Wills Eye, the Howard and the Polyclinic hospitals, but 53 cases of this variety of strabismus were recorded, in comparison with 309 cases of concomitant squint.

As already indicated by Duane,[1] this form of palsy may affect any of the eye muscles, and types of deviation may be very varied. This is well demonstrated by the character of the deviations which occurred in my cases. It will be noted, however, that while each case was made to conform to some particular type of muscle palsy, the position which the eye assumed did not in all instances conform to the standards which authorities have assumed for the deviations occasioned by such palsies. This is accounted for in some of the cases by the changes induced in the muscles by secondary contractions and by the mixed character of the palsy as a consequence of the involvement of more than one muscle, and in others because of anomalous insertions of the muscles into the globe. Deviations due to this latter cause undoubtedly form a very considerable proportion of cases of congenital squint, and, while it is manifestly improper to designate them as palsies, they may, for convenience in classification, be described as conforming to this or that type of muscular paralysis.

Certain types of muscular insufficiency demonstrated by the cases deserve especial notice.

Figure 7.

Figure 8.

Figure 9.

Fig. 7.—(Case 10.) Palsy of right superior rectus muscle. Fixing with right eye, O. S. deviating outward and slightly upward.
Fig. 8.—(Case 10). Looking to extreme left. Both eyes fixing.
Fig. 9.—(Case 10.) Looking to extreme right. Photograph blurred, due to the invariable movement of patient's head and eyes when looking to the right. O. D. fixing; O. S. deviating up and in, due to overaction of the left inferior oblique muscle. Tenotomy performed on left inferior oblique, correcting in large measure the upward and inward tilting of O. S.

ANOTROPIA.

CASE 1.—Child, aged 6 years, with skull too long in the anteroposterior diameter and orbits deeper and narrower than normal. A twin sister, examined at the same time, presented much the same shaped skull and orbits, but no ocular symptoms. When fixing in the median line, and screen placed over the right eye, O.D. deviated directly up under cover, slowly but steadily swinging down again to fix. When the left eye was screened off the deviation was up, but also in, in the same slow rhythmical fashion as in O.D. There seemed to be a lagging in the left eye when the object was carried down to the right, and this eye showed a tendency at times to slight convergent strabismus. H. equaled 1.5 D. in each eye. Vision was normal. This child had had convulsions, which were thought by Dr. W. G. Spiller, who saw the case in consultation, to be due to premature birth and to belong to the class of cases described by him under Little's disease.[10]

This rare anomaly of the ocular muscles has been described by Stevens[11] under the name of anotropia. He says that in these cases there is excess of the upward rotation in each eye, associated with a declination of the meridians, as a consequence of which the simultaneous and synergic action of the superior obliques is suppressed and the superior recti act alone.

PARESIS OF BOTH SUPERIOR RECTI AND OF RIGHT RECTUS EXTERNUS MUSCLES.

CASE 6.—Male, aged 10 (Figures 1 and 2). Good mentality; head well formed, but face underdeveloped; pronounced wry neck; head held in oblique position, right side of face presenting. Primary position O.D., convergent strabismus, 45 degrees; object carried to the right, O.D. fixing, O.S. deviates up and in; object carried to the left, O.S. fixes and O.D. deviates up and in; both eyes deviate upward under cover; marked limitation in outward rotation of O.D.

Tenotomy of Both Inferior Oblique Muscles.—Removed the upward and inward deviation of the eyes.

Advancement of Right Rectus Externus.—Resulted in parallelism of visual axes; two months after operation no appreciable change in wry neck. Dr. James K. Young, who saw the patient on admission, reported contraction of left sterrocleido mastoid with chin toward the right; left cervical, right dorsal, and slight left lumbar curve; slight hemiatrophy of left side of face.

INSUFFICIENCY OF BOTH INFERIOR OBLIQUE WITH OVERACTION OF BOTH SUPERIOR RECTI.

CASE 9.—Female, aged 17. (Figures 5 and 6).

O.D. V. = 5/6; H. + A.H. = 2 D.
O.S. V. = 5/5; H. + A.H. = 4 D.

Fixing in median line, eyes are straight; object carried to right O.D. lags and O.S. turns slightly up and in; object carried to left, O.S. rotates normally outward and O.D. deviates up and in; object carried up, O.S. fixes and O.D. diverges up and out, these motions being attended with marked wheel-motion in O.D.; O.D. goes slightly up under cover and diverges when patient looks up.

Tenotomy O.D. Inferior Oblique.—Now no deformity in primary position, but when eyes are directed to the limit of their rotary power to the left, O.D. still deviates somewhat up and in.

PARALYSIS OF RIGHT SUPERIOR AND INTERNAL RECTUS MUSCLES.

CASE 17.—Female, aged 8 (Figures 10, 11, 12 and 13).

O.D. V. = 5/12; H. = 3 D.
O.S. V. = 5/5; H. = 1 D.

Pronounced cranial asymmetry; skull irregularly flattened laterally; marked prominence of right temple and of occipital protuberance; the left supraorbital ridge receding, that on the right side well developed; nose curved to the right; fixes with O.S., O.D. diverging 30 degrees and deviating somewhat downward; object carried to the left, both eyes fix normally; object carried to the right, O.D. fixes, O.S. deviating markedly up and in; marked deficiency in upward and outward motion in O.D.; O.S. deviates up and out behind screen.

Prolonged and difficult labor; face presentation; head much misshapen after birth; physician at confinement said cord

8. Cases Nos. 1, 7 and 8; 36 and 37.
10. Univ. of Pa. Med. Bull., January, 1905.
11. Motor Apparatus of the Eye, 223.

was abnormally short. Since child was five months old the mother has continually practiced straightening the head by forcibly pressing on it on the anteroposterior axis. Dr. W. G. Spiller believes the child to be the subject of infantile cerebral hemiplegia. Dr. J. K. Young has recently operated on child for tendon contractions in both legs.

Right Rectus Superior Advanced.—Supplemented the movements of the globe in the direction supplied by this muscle. Secondary deviation of the left eye, up and out, overcome by *tenotomy of left rectus superior.* Parallelism of visual axes obtained by *advancement of right internal* rectus.

INSUFFICIENCY OF BOTH INFERIOR OBLIQUE WITH OVERACTION OF BOTH SUPERIOR RECTI.

CASE 32.—Male, aged 4 (Figures 16, 17 and 18). Parents had noticed that since infancy, when looking at distant objects, one eye would be apt to roll so far out and up in the corner of the orbit that the pupil would almost disappear. Child is well formed and strong; no convulsions or illness; head large and of good shape. In primary position O.D. is convergent 5 degrees; when the examining object is carried to the right, O.S. fixes, O.D. deviating far up and out; when the object is carried to the left O.S. goes up and out, O.D. fixing; object carried straight up, O.S. fixes and O.D. diverges; object carried down, O.D. diverges also. The cover test resulted as follows: O.D. fixing, O S. goes up and out under cover; O.S. fixing, O.D. goes up and out under cover.

PALSY OF RIGHT RECTUS EXTERNUS.

CASE 48.—Male, aged 29 (Figures 24, 25 and 26).

O.D. V. = 1/60; H. + A.H. = 1.5 D.
O.S. V. = 6/6; H. + A.H. = 1.5 D.

O.D., convergent 45 degrees; limitation in outward motion as eye is rotated outward; some overaction of left external rectus in secondary deviation. *Advancement of right rectus externus muscle.*

CASE 49.—Female, aged 11.

O.D. V. = 35/22; H. = 1 D.
O.S. V. = 5/6; H. = 1 D.

O.D., convergent 25 degrees; limitation of outward motion beyond median line; O.D. turns slightly up as object is carried to the right; secondary deviation downward of O.S., especially in the upper outer parts of the field.

Figure 10.

Fig. 10.—(Case 17.) Paralysis of right superior and internal recti muscles. Primary position: O. S. fixing; O. D. deviating outward and slightly downward. Showing cranial asymmetry.

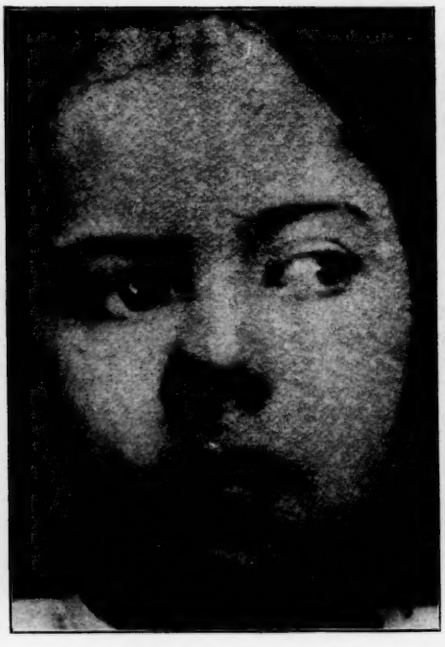

Figure 11.

Fig. 11.—(Case 17.) Looking to extreme left, both eyes fixing normally.

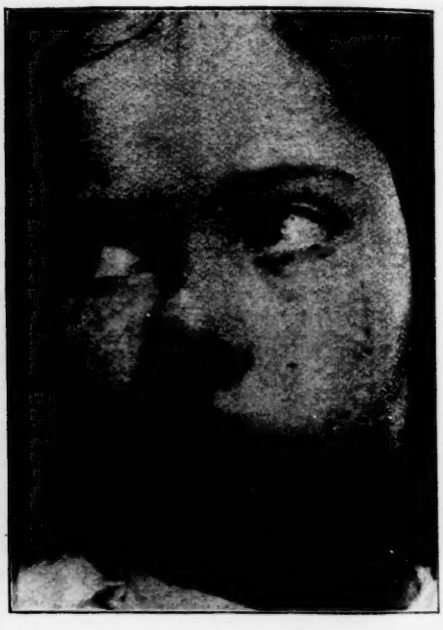

Figure 12.

Fig. 12.—(Case 17.) Looking to extreme right, O. D. fixing, O. S. deviating up and in.

Figure 16.

Fig. 16.—(Case 32.) Insufficiency of both inferior oblique with overaction of both superior recti muscles. Looking to the extreme left, O. D. fixing; O. S. tilting upward and outward under the upper lid, due to overaction of left superior rectus muscle.

Figure 17.

Fig. 17.—(Case 32.) Primary position: O. D. convergent 5 degrees.

Figure 18.

Fig. 18.—(Case 32.) Looking to extreme right, O. S. fixing; O. D. tilting upward and outward under the lid, due to overaction of right superior rectus muscle.

CASE 50.—Female, aged 8.

O.D. V. = 3/45; H. = 3 D.
O.S. V. = 5/30; H. = 2 D.

Holds head to right when fixing object; O.D., convergent squint 40 degrees; inability to rotate O.D. beyond median line; overaction of left rectus internus as object is carried to right.

PALSY OF INTERNAL RECTI AND RIGHT SUPERIOR RECTUS.

CASE 63.—Male, aged 9 (Figures 27 and 28).

O.D. V. = 3/40; + 2 D.
O.S. V. = 4/45; + 2 D.

Optic nerves partially atrophic; dome-shaped skull; frog face; alternating divergent squint; convergence abolished; marked restriction in inward motion of both eyes and of upward and outward motion in O.D.; lateral nystagmus on fixation; overaction of both external recti in lateral movements. Convulsions for past three years.

A type which is by no means uncommon is that in which there is a divergence of the visual axes. This may vary in degree from a moderate exophoria to an alternating divergent strabismus of high degree. In some of these cases, even though the degree of the divergence is great, the power of adduction is so strong that the eyes may be made parallel by effort. There is frequently an anatomic basis in this type, either diverging orbits with a broad base line, or some abnormality in the insertion of muscles into the globe. A skiagram made by Dr. C. L. Leonard of a recent case showed abnormally large ethmoidal cells and a slight spur-like projection of the internal wall of the orbit. The spur is seen in its perpendicular section. Although the projection is slight, in connection with the enlarged ethmoid cells, it produced a definite change in the angle between the internal walls of the orbit.

CASE 70.—Female, aged 28 (Figure 30).

O.D. V. + S. 1 D. ⌒ + C. 0.25 D. ax. 90° = 5/5.
O.S. V. + S. 0.75 D. ⌒ + C. 0.50 D. ax. 180° = 5/5.

The left was the preferred fixing eye, the right deviating 30 degrees (Fig. 30). There was no diplopia, the subject being able to suppress the image of either eye at will; the right rectus internus was advanced and a guarded tenotomy performed on the right externus with resultant parallelism of visual axes.

To complete the list of types which may be assumed by cases of congenital palsy, there should be included that of paralysis of the externus with paresis of the internus and retraction movements, of which some 55 have been described by Duane. According to this author, the underlying cause of this condition is a congenital anomaly of the external rectus or its transformation into a connective tissue cord.

SUMMARY.

Of the 70 cases which have been recorded, anotropia occurred in 1 case; paralysis of both superior recti with paralysis of rectus externus in 1; paralysis of both superior recti in 3; paralysis of the right superior rectus in 7; paralysis of the left superior rectus in 9; paralysis of the left superior rectus and external rectus in 1; paralysis of the right superior rectus and levator in 1; paralysis of the right superior rectus and internal rectus in 1; paralysis of both superior oblique in 1; paralysis of right superior oblique in 1; paralysis of left superior oblique in 2; paralysis of right superior oblique and left inferior rectus in 1; paralysis of both inferior oblique in 1; paralysis of both inferior recti in 1; paralysis of left inferior rectus in 2; paralysis of right inferior rectus in 2; paralysis of both external recti in 4; paralysis of right external rectus in 9; paralysis of left external rectus in 9; paralysis of both external

Figure 24.

Fig. 24.—(Case 48.) Paresis of right external rectus muscle. Looking to the extreme right. Limitation of the outward rotation in O. D. as a consequence of palsy of the right rectus externus muscle.

Figure 25.

Fig. 25.—(Case 48.) Right convergent, O. S. fixing.

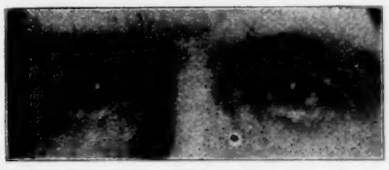

Figure 26.

Fig. 26.—(Case 48.) Correction of squint by advancement of the right rectus externus muscle.

Fig. 27.—(Case 63.) Palsy of both internal recti muscles and of the right superior rectus muscle. "Frog face." O. S. fixing; O. D. deviating outward and slightly downward.

Fig. 28.—(Case 63.) Profile showing misshapen skull and shallow orbit.

rectus and right superior and inferior rectus muscles in 1; paralysis of left external rectus with ptosis in 1; paralysis of left external rectus and right superior rectus in 1: paralysis of both internal recti in 5; paralysis of left internal rectus in 5; paralysis of left internal rectus with ptosis in 1.

Cases Nos. 7 and 8 and 36 and 37, with Case 1, illustrate the character of the deviation observed in three sets of twins.

Cases 2, 3 and 12 show the occurrence of the squint in both brother and sister.

In Case 14 the father was cross-eyed, and in 56 the father had an analogous palsy.

Operation was performed on Cases 6, 9, 10, 13, 15, 17, 28, 33 and 55.

While congenital squint is comparatively uncommon, its early recognition is of the greatest importance, not only on account of the treatment of the ocular condition itself, but also, if the squint be of central origin, by reason of the aid which the detection of the palsy in the eye muscles may give in the recognition of some obscure lesion in the nervous system.

From the standpoint of treatment, the necessity for the early differential diagnosis between congenital and concomitant squint can not be insisted on too strongly, for each manifestly demand different methods for their correction. In congenital squint no form of orthoptic exercise is of service, operative measures alone sufficing to straighten the visual axes, while in concomitant

Fig. 30.—(Case 70.) Divergence of visual axes. Paretic action of both internal recti muscles; most pronounced in the right eye. Slight overaction of right superior rectus muscle.

squint orthoptic measures if inaugurated early will often, in conjunction with proper lenses, accomplish all that is requisite.

The folly of subjecting paralytic cases to the strain and annoyance of amblyopic exercises is apparent, and this method, which is so potent in the cure of concomitant cases should not, therefore, be essayed. Refraction errors should be corrected, with a view to improving the vision in both eyes, though as both organs are employed in fixation amblyopia exanopsia does not develop in these cases.

The operative treatment of congenital squint obviously presents very great difficulties, but, as the deformity is often very marked, its relief should always be attempted. Before proceeding to operation, however, it goes without saying that the ophthalmologist should first study the case in all its details, with a view to discovering, as far as is possible, the muscles at fault and the direction in which the movements of the eye need supplementing or curtailing. At times exploratory incisions over the normal insertions of the muscles are of advantage before the actual muscle which is to be operated on is selected. In many of these cases the absence or underdevelopment of a muscle or the presence of fibrous bands will so modify the rotation of the eyes that all rules which govern the operator in the performance of operation in ordinary cases of squint must be abandoned, and he will be compelled to proceed on entirely new lines. Tenotomy of one or more muscles with advancements of associates will usually have to be performed, for a single operation rarely suffices to materially improve the condition.

Operative procedure in this class of cases should be performed in the neighborhood of 10 years of age; the permanent character of the deviation is rarely fully established until that age, and in the event that advancement is demanded younger subjects are usually too restless to permit of the immobility of the eyes which is so desirable after advancement, and the tissues of the eyes too delicate to enable the stitches to be properly embedded.

To overcome the overaction of the inferior oblique muscle, tenotomy was performed on this muscle in five of the recorded cases, the tendon being divided near its point of origin at the lower inner margin of the orbit, through a skin incision which followed the rim of the orbit. Contrary to the experience of Duane,[12] I have obtained but a limited effect from this procedure, for, although the tilting of the eye upward and inward was lessened in all instances by it, this deformity was never wholly removed. The photographs (Figs. 5 and 6) illustrating Case 9 demonstrate the overaction of the muscle as a consequence of palsy of the right superior rectus, and show the effect of tenotomy in relieving the deviation. The procedure is an extremely simple one; the scar of incision soon disappears, and I acknowledge my indebtedness to Duane in bringing the operation into prominence and for the indications which he has given for its employment.

Fig. 31.—Case of Mongolian idiocy, showing convergent strabismus in right eye. Paresis of both external and superior recti muscles.

In closing, I desire to express my thanks to Drs. Walton C. Swindells, Frank C. Parker and Jay C. Knipe, chief assistants in my various clinical services, for aid in observation of the cases and in preparation of the notes, and to Drs. Swindells and Parker in particular for their kindness and skill in photographing many of the cases, some of the most interesting of the reproductions being incorporated in this paper.

DISCUSSION.

DR. ALEX. DUANE, New York, discussed the differential signs given by Dr. Posey. In his experience, nystagmus is infrequent, although pseudo-nystagmus, i. e., jerky movements occurring near the end of an ocular excursion, is frequent. But this latter is of little value as a diagnostic sign. On the other hand, diplopia can be demonstrated almost invariably. It persists unchanged through life. Moreover it is a very characteristic diplopia, i. e., one which increases and decreases in a perfectly typical way. Although it may be seemingly ignored, the diplopia evidently causes discomfort and confusion, which the patient learns to avoid by various characteristic artifices—especially by fixing with the paretic eye and by

12. British Med. Assn., Toronto, August, 1906.

head-tilting. Fixation with the paretic eye is very frequent—so frequent, indeed, as almost to acquire the value of a diagnostic sign. It may occur even when the other is the better-seeing eye. It is associated, of course, with marked secondary spastic deviation of the non-fixing eye. This necessarily separates the double images further from each other than if the unparalyzed eye were fixing and thus often renders the diplopia less confusing. Head-tilting is a very common symptom, especially in the vertical deviations; it being the readiest means of increasing or diminishing vertical diplopia. To tilt the head to the right depresses the right hand image whether that image belongs to the right eye or the left. Hence, in a right hyperphoria due to a paralysis, to approximate the images requires tilting the head to the left if the images are homonymous, and to the right if they are crossed. This shows why, in some cases of paralysis of the right superior rectus, the patient may tilt his head to the right and in other cases to the left. Anisometropia occurs often, but perhaps not oftener than in ordinary squint.

Dr. Duane classified the types of deviation that he has seen as follows: 1. Isolated paralysis or moderate paresis of the superior rectus. This is by far the most common form and one often overlooked, because the deviation in the primary position is usually slight. Two varieties occur: (*a*) Paralysis of one eye; fixation with the other eye. He has seen perhaps 9 or 10 cases. Head-tilting is frequent. Cases are often unrecognized except by careful examination. (*b*) Paralysis of one eye; fixation with paretic eye. These cases, of which he has seen 10 or 12, constitute a characteristic group. If the right eye is the one affected (as is usual) the patient keeps the head tilted markedly and turned to the right, and avoids looking to the right and up. When he does look to the right, and especially if he looks a little above the horizontal plane, the left eye shoots obliquely and sharply up and may at the same time diverge. Movements in other directions are usually normal. In infants the head-tilting may be so pronounced as to produce a special kind of false torticollis (this in three of Dr. Duane's cases). 2. Congenital ptosis. He has seen only one or two cases and these not bilateral—although Willbrand and Saenger say it is almost always so. Not to be confounded with true congenital ptosis are the not very infrequent cases in which the lid droops when the eyes are turned in and rises when they are turned out, or vice versa. 3. Paralysis of the external rectus. Of uncomplicated paralysis of this muscle he has seen only 4 or 5 examples. The most usual form of complicated paralysis is the well-defined syndrome marked by (*a*), deficiency partial or complete, of the externus; (*b*), marked insufficiency of the internus; (*c*), retraction movements, when the eye is adducted, there being combined with this a narrowing of the palpebral fissure and an upshoot or downshoot of the adducted eye. A large number of cases of this syndrome have been described. He has seen 8. Almost certainly it is due in all cases to structural abnormalities in the muscles themselves. 4. Paralysis of the internus apart from that occurring in the syndrome above mentioned he has never seen as a congenital affection. 5. Other congenital paralyses noted are those of the superior oblique (four cases, possibly more), inferior rectus and superior oblique (one case), inferior rectus alone (three, or perhaps five cases), inferior oblique (one case at least). 6. Spastic upward deviations secondary to paralysis of the superior rectus in the fellow eye or to paralysis of the externus in the same eye are common. In one case such deviation appeared to be due to primary overaction of the inferior oblique.

Dr. Duane agreed with Dr. Posey concerning treatment. Many patients require no treatment, as their symptoms do not warrant interference.

DR. W. C. POSEY, Philadelphia, said that he is fully aware that the study of many of the cases is not so complete as could be desired. But the observation of cases of this nature is often extremely difficult, and meager as the details may be, the results obtained by observing the eyes as they are made to move through the various meridians of rotation, and the deviations which occur behind the screen, are often the only means of diagnosing the nature of the palsy and of differentiating the affected muscle.

Of particular interest is the group of cases which were treated by tenotomy of the inferior oblique muscle. The procedure is a very simple one and is best done by making a curvilinear incision over the lower inner orbital rim as deep as the bone. A strabismus hook is then inserted into the soft tissues and passed in different directions until traction made with it rotates the eye up and somewhat out. This is evidence that the tendon of the muscle has been secured, and all the tissues on the hook should be freely divided by the scissors. The results are satisfactory, though no great degree of effect is obtained.

VOLTAIC TURBINAL PUNCTURE FOR THE RELIEF OF INTUMESCENT AND HYPERTROPHIC RHINITIS.

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DENVER.

Electrolytic action on certain substances is so well known and understood by the majority of physicians that the rehearsal in this paper seems unnecessary with the exception of a few vital points to refresh the memory. The galvanic current has two known properties, chemical and thermal, electrolysis being the result of the chemical action. A marked difference in the chemical action takes place at either pole during electrolysis. The anodal or positive pole when in contact with, or immersed in, a compound fluid attracts the oxygen and acids of the electrolyzed fluid or tissue; the negative, or cathodal, attracts the hydrogen and the salines.

This chemical action of the negative galvanic current, when in contact with or immersed into mucous membrane, produces decomposition and slight cauterization; the thermal effect, if the current be intense enough, will cause redness, heat, congestion, inflammation, and even sloughing in turbinal tissue. The sensory nerves are stimulated by the galvanic current. The gustatory nerve, stimulated by the positive pole, induces an acid-galvanic taste. The negative pole gives a metallic or coppery taste. The negative or cathodal pole has a slightly caustic action on the mucous membrane when applied a short time and with low amperage. When used at a higher amperage and for a longer time, destructive and degenerative action will result.

Experiments on tumors have demonstrated distinctively the above-mentioned properties, and the galvanic current has caused tumors to shrink, dissolve and be dissipated. However, when the positive current is used through the medium of a gold needle in the mucous membrane of a turbinated body it causes a dry coagulum to form, which adheres tenaciously to this electrode, and for this reason makes it difficult to withdraw, and will cause intense reaction on the mucous membrane. On the other hand, the cathodal or negative pole has quite a different effect. The liberation of gases at this pole produces a frothy soft coagulum, which makes it easy to extract the needle after piercing turbinal tissue.

The beneficent results of voltaic turbinal puncture by means of the negative pole for the relief of nasal stenosis due to pathologic changes, such as swelling, tumefaction, infiltration, new growth of tissue, are manifold. Chiefly they are as follows:

1. Pain during the treatment is practically *nil*. 2. The operation is almost bloodless. 3. Postoperative reaction is satisfactory. 4. No scar tissue remains on the surface of turbinate. 5. Mucous membrane after treatment performs its natural function. 6. No postoperative complications follow.

TECHNIC.

The patient is seated in front of the operator in an ordinary straight-backed specialist's chair. The nasal cavity is well cleansed, and, if desirable, but not absolutely necessary except in hypersensitive patients, a weak solution of cocain, say 4 per cent., may be sprayed into the nasal chamber requiring treatment.

A wrist band (Fig. 1) is applied when the unipolar method is employed, holding a sponge electrode to which is attached the positive wire leading to the galvanic apparatus. The negative wire leading from the galvanic plate or battery is attached to a specially constructed nasal electrode into which is secured a polished gold needle, of the thickness of an ordinary pin with sharp tapering point, and three inches in length. Under brilliant illumination the nasal orifice is held open by aid

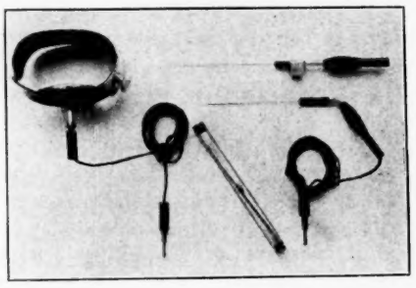

Fig. 1.—Wrist band with electric connections and needles.

of a nasal speculum. The nasal electrode containing the needle is held between the thumb and first finger, and the point of the needle is made to pierce the anterior tip of the turbinal body requiring treatment.

The rheostat is now gradually turned in so as to obtain the desired amperage. At the point of the needle there will be seen a frothy deposit which shows the cauterizing electrolytic action at this pole, denoting the liberation of gases and decomposition of tissue substance. The point of the needle is to remain in this position for about fifteen seconds, and by gently and steadily pushing forward it is gradually passed into the turbinal body to the desired length. The distance to which the

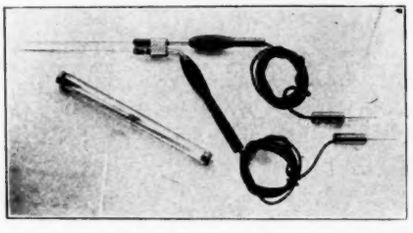

Fig. 2.—Arrangement of needles for bipolar method.

needle is to be inserted varies according to the length of the turbinate. The needle having thus been inserted into the turbinal body to the desired distance, the current is allowed to pass through this terminal and the milliamperemeter should register a stated amperage of three milliamperes for three minutes, care being taken that as little movement of the needle as possible be made. Before the withdrawal of the needle the rheostat is turned down and off. The needle can then be withdrawn as easily as it was inserted.

At times this puncture hole made by the needle will bleed a trifle. This oozing or leakage is readily controlled by a little pressure with the aid of a cotton applicator. The turbinate should then be milked from its posterior end anteriorly. Experience has proved that bleeding is easily controlled by slight pressure along the course of the puncture canal.

CASE 1.—*History.*—Mrs. G. P. consulted me Oct. 8, 1906, complaining that she was using too many handkerchiefs, seven or eight a day.

Examination.—On examination I found a typical case of extensive anemic turgescence of both inferior turbinates, which were lying on the floor of both nasal chambers. This was my first case of needle degeneration, and I was not yet familiar with the technic as regards application of current and poles.

Treatment.—I pierced the left inferior turbinate with a specially constructed copper needle, puncturing into the interior tip. The positive current was used with three milliamperes and twenty volts, allowing the needle to remain imbedded in the turbinated body for one minute. When trying to withdraw it, it was found that it had become adherent. I then reversed the poles, using the negative current for one minute more, which loosened the needle sufficiently to be easily extracted. The patient returned the next day, with more nasal stenosis than she had experienced before. At this time I had secured gold needles, which were especially made for this treatment. I inserted one needle into the right inferior turbinate and applied the negative current direct, instead of changing the poles, as at the previous sitting. Two days later the patient returned, informed me that she had no reaction and that she was using only about four handkerchiefs a day. Subsequently I used the gold needle in both inferior turbinates once more to a depth of two inches, applying only the negative

Fig. 3.—Outfit for voltaic turbinal puncture in case.

current. Thereafter the turgescence was sufficiently shrunk and the exudation had completely subsided.

CASE 2.—*History.*—Mr. F. A. C. consulted me Oct. 19, 1906. The ordinary symptoms of frontal sinus disease were present, such as accompany non-infected frontal sinus diseases. He had an acute non-suppurative frontal sinus involvement. Frontal sinus drainage was very much impaired, due to the distension of the anterior hypertrophy of the middle turbinates with serum. Turgescence was so marked that the nasal cavity in this locality was entirely closed, causing the middle turbinates, especially anteriorly, to press against the mucous surfaces of the septum. The septum in this case was surprisingly straight. The pain experienced by the patient was intense, coming in cycles which lasted from six to eight hours each time.

Treatment.—Being positive at the time that there was no purulent accumulation in this accessory sinus, and that, in all probability, an operation could be averted if proper drainage was established, I proceeded in exactly the same manner as though I were dealing with inferior turbinate turgescence. On account of the extensive tumefaction of the middle turbinates I was justified in making three punctures in each of these turbinates at the first sitting, introducing the needle into the turgescence to a distance of one and one-fourth inches and allowing it to remain in place for two minutes at each puncture. The next day the patient informed me that his pain

d subsided, only a sensation of soreness remaining, accomnied by profuse discharge. I found that the two turbinates ated the day before had diminished one-half in size, and the ntal sinus was draining its serous contents into the nasal amber. I advised the patient to continue an alkali spray olution before prescribed. On the following day I passed the edle once in each middle turbinate, the punctures being ade a little more posteriorly to the ones of the previous sitting. I did not hear from him until one week after. On his turn he informed me that his nose had not bothered him at all; the pain had subsided as well as the discharge.

CASE 3.—Mrs. E. M., seen Nov. 4, 1906.

Examination.—On examination it appeared that the patient had hypertrophic rhinitis of both inferior turbinates. After carefully palpating with probe and applying a weak cocain solution, I was inclined to place the condition under the head of beginning hyperplastic rhinitis, on account of the peculiar consistency and the insufficient shrinkage under cocain. Considered from a pathologic standpoint, it would appear that no great benefit could be obtained or a marked degree of shrinkage produced by means of voltaic turbinal puncture. However, as my results on true hypertrophy had, up to the present, been so satisfactory, a trial was advisable, because the hyperplasia seemed to be limited to the pericondrium and the adjacent tissue and because there was enough turgescence over the periphery which, if properly treated by electric decomposition, would be materially benefited.

Treatment.—These deductions were well founded, for, after four introductions of the needle into the inferior turbinates, the mucous surface was sufficiently drawn so that nasal breathing was all that could be desired.

CASE 4.—*History.*—Mr. W. J. consulted me in December, 1906, c mplaining of ear noises, some stuffiness and fulness of the ears, with slight impairment of hearing.

Examination.—Examination of his pharynx and nose revealed the mucous membrane to be in a state of chronic hypertrophy and edematous, which would account for the closure of the pharyngeal mouth of the Eustachian tubes, giving the ear symptoms cited. Both inferior turbinates were tumefied and soggy.

Treatment.—The gold needle was applied; two punctures were made in the right inferior turbinate and one puncture in the left inferior turbinate at two sittings two days apart. Result: Complete shrinkage of turbinates and cessation of ear symptoms. After the second treatment the patient inquired why treatment of the nose should help his ears. This is explained by the fact that both turbinates were now practically normal, and the swollen condition had not only been reduced in the nose, but in the pharynx as well. On request, he reported one month after treatment and at that time the condition was seen to be permanent.

CASE 5.—*History.*—Mr. J. M. H. consulted me in January, 1907, for stoppage of the nostrils, especially at night, and frequent attacks of cold in the head. At the time of examination the patient was afflicted with one of these colds.

Examination.—Inspection disclosed a large basal spur, which was in contact on the left side with a true tumefied inferior turbinate. The middle turbinate on the right side was soggy and serum laden. The inferior in the right side had previously been operated.

Treatment.—The needle was used on both these turbinates. Three treatments were necessary to shrink the left inferior and one treatment for the right middle. The patient, on his return eight weeks later, reported that he not only breathed better, but slept in comfort and had since had no attack of coryza.

CASE 6.—*History.*—Mr. R., February 3, emergency case, came for nosebleed, which had existed off and on during the previous forty-eight hours, but not profusely. He had been suffering with neuralgia over the right eye for the last eight months.

Examination.—On examining his nares, after thoroughly bidding the nasal cavity on that side of a clot of blood, a small ulceration was seen on the septum on the right side, due, in all probability, to the rubbing of the partially hyperplastic inferior turbinate against it. The bleeding was easily controlled and the patient asked to return the next day.

Treatment.—The gold needle was inserted. Two punctures made on the right inferior turbinate, in the regular manner, and it was noticed at this sitting that he also had extensive involvement of the middle turbinate on this side. Two days later this middle turbinate was punctured once, which shrunk it to its normal size. The patient returned ten days later for the express purpose of informing me that he had not had neuralgia since the voltaic puncture treatments; that the condition of his nose was now normal.

CASE 7.—*History.*—G., a boy of 16. On Feb. 4, 1907, the mother of the patient consulted me regarding excessive snoring of her son.

Examination.—This showed absence of adenoids and tonsils, but practically occluded nasal chambers, due to true hypertrophy of both inferior turbinates of infiltrated variety; they were exceptionally large and soggy for a boy of his age.

Treatment.—Both inferior turbinates were punctured three times, once at each sitting. Shrinkage was very apparent at each subsequent call, practically establishing normal breathing. His nose would have been absolutely normal but for the sigmoid-deflected septum. This septal deformity it was not deemed advisable to remove for the reason that the patient's symptoms had subsided, breathing through the nose being good, and his mouth was now closed at night.

CASE 8.—*History.*—Mrs. C. J., seen Feb. 10, 1906, had contracted a cold three days previous to my visit to the house. Suffering at the time with an obstruction of the Eustachian tube due to the nasopharyngeal inflammation, which caused a sensation of fulness in both ears. The reason for my call was to relieve her of an acute non-suppurative frontal sinus, which was the cause of rather sharp neuralgic pain.

Examination.—I found the nose markedly congested, the hyperemia showing all the effects of an aggravated case of acute rhinitis. Nasal breathing was impossible, due to the extensive hyperemia and turgescence of the turbinate bodies, and a depletion of the capillaries in these congested nostrils by the use of adrenalin and cocain was necessary. After the shrinkage of the turbinates it was possible to view the nasal chamber more thoroughly, and it was observed that the frontal sinus poured forth its contents freely, bathing the middle turbinates with a straw-colored serum. I prescribed a spray which should continue the shrinkage in order to drain the frontal sinus sufficiently, until she was able to come to the office for further treatment.

Treatment.—Two days later the pain had but slightly diminished, when I applied the voltaic turbinal puncture. After two treatments with the gold needle in both middle and inferior turbinates on both sides, the relief was surprising, and has remained permanent to this date.

CASE 9.—*History.*—Mrs. S. B. L. consulted me March 2, 1907, for the accumulation of crusts in the nose.

Examination.—On examination I found the inferior turbinate hyperplastic anemic, dry and scaly, and lying on the floor of the left nasal cavity. An excision of the middle turbinate had been made three months previously. The inferior turbinate was not of the ordinary variety, being more fibrous than the average, probably due to the use of some cauterizing agent. I suggested removal by the ordinary method of excision.

Treatment.—The patient, not wishing to consent to operative work with knife, saw, scissors or punch, as a last resort, and not in the least anticipating much benefit, I applied the voltaic turbinal puncture. On her return the next day I noticed little or no effect. I repeated the same puncture treatment every day for seven days. Although the contraction of this fibrous body was not so satisfactory to ocular inspection as the ordinary and true cases of turgescent hypertrophic rhinitis, the crust formation was relieved.

CASE 10.—*History.*—Mr. J. P. G., seen March 15, 1907. Nasal obstruction on the left side. He had been treated for nasal lesions from time to time.

Examination.—A large synechia was visible by anterior rhinoscopy. This band spread across from the inferior turbinate,

adhering to the septum on the left side, which in all probability was caused by some previous operative interference. The advisability of removing the synechia was apparent, because it obstructed the floor of the nose to such an extent as to interfere with the floor drainage. This was done with appropriate dressing. Besides this synechia, he had a very large hypertrophy of the middle turbinate, more especially marked posteriorly, which hung down, resting on the synechia before its separation. I introduced the gold needle into this hypertrophic body twice at one sitting. This treatment was sufficient to shrink the turbinate to such an extent that his nasal breathing was completely established on that side.

Special Article

TRAVEL NOTES FROM SOUTH AMERICA.

NICHOLAS SENN, M.D.
CHICAGO.

(*Continued from page 1361.*)

V. *MEDICAL AFFAIRS IN ARGENTINA.

The medical profession is well represented in Argentina. It is made up of men who stand high in the community, and who, besides attending with zeal to their legitimate work, take an active part in social and political affairs. Buenos Aires, the capital of the republic, has no lack of medical talent. With a population of about 1,000,000, it has no less than 1,500 practitioners of medicine, among them 40 from England, 2 from Switzerland and 6 or 7 from Germany, but only 1 from the United States, Dr. Palmer K. Lyon, of New York, medical director of the New York Life Insurance Company for South America, who does not practice.

As in Brazil, the social status of physicians in Argentina is high, and many young men study medicine without any intention of entering practice, simply for the purpose of preparing an easy way to social recognition and distinction. The title is also of much value in the matrimonial market. The doctors are scattered all over the city, but most of them keep an office in the central part of the city. The physicians who have a large practice assign the most disagreeable part of it, the collection of fees, to the porter. This important individual is supposed to exercise good judgment in collecting the fee in advance, which, as a rule, varies between $5 and $15. When the money matter has been attended to, the patient receives a card, and when his turn comes enters the sanctum of the doctor. The one-man office is holding its own in this city. Some of the busy practitioners have an assistant, but the physician makes his own diagnosis. Office laboratories, suites of rooms containing electric machinery, Roentgen apparatus, medicated sprays, microscopes and test tubes operated and used by a corps of low-salaried assistants, and much other display to excite the awe and confidence of the public, but really intended to command a large fee, have so far not found their way into this country. If a chemical or microscopic examination becomes a real necessity the patient is sent to a pharmacy for this purpose and later returns to the physician with the report.

Medical and surgical services are paid for on a scale which compares well with our own. Fancy fees are few and far between. One of the surgeons whom I met had a fee of $4,000 in prospect for an operation he performed recently on a young woman the subject of an echinococcus cyst and abscess of the liver, the abscess being etiologically distinct from the cyst. Dr. John O'Connor of the British Hospital (Fig. 16) is the ablest and best known English surgeon in the city. He has lived in Buenos Aires for eighteen years, and besides his onerous hospital work has a large and remunerative private practice. Many of the more prominent doctors display no signs, making use of modest glass plates, on which their names and titles are engraved and in some instances their specialties; but flaming signs of any kind are not to be seen anywhere. The offices which I visited looked more like well-furnished parlors than consultation rooms, presenting a pleasing home-like appearance. Political influence weighs heavily in the balance of a successful professional career, much more so than in our country. Influential and wealthy relatives and friends are also valuable promoters. Medical cliques are numerous and of a hard-shelled kind.

Speaking disparagingly of colleagues when they are out of hearing distance is a common flaw. The tie of fraternal union is loosely woven and very elastic. Overcrowding of the profession is undoubtedly responsible for a lack of better cordiality among the medical men. The law regulating the admission to practice of students in medicine from foreign countries is a very stringent one, and, I was informed, is directed especially against Italy. The Italian population of Argentina is very large, and we know from experience in our country that the Italian doctors follow their countrymen wherever they go in any considerable number, and if it were not for some such safeguard the country would be flooded with graduates from the many medical schools of Italy.

Fig. 16.—British Hospital, Buenos Aires.

If a foreigner intends to practice medicine in Argentina he must pass a series of twenty-three examinations in the Spanish language after his foreign diploma has been approved by the minister of the interior or secretary of state of the country in which he resides, and after it has been transmitted through state channels to the minister of education of Argentina. The examinations are oral and are conducted by the faculty of the medical department of the university. The fee for these examinations must be paid in advance and amounts to 900 pesos ($378). Three professors are present at each examination. The great trouble has been to get these three examiners together at any fixed time. A German physician who has passed the examinations told me that many a time he had made his appearance at the appointed time, but failed to find the board in session or perhaps only one or two members present, and consequently one examination was postponed for weeks, and the same mañana policy was repeated with the other examinations, so that it took several months before he could pass them all. He said the examinations when they did take place were fairly conducted and complained only of the length of time it required to pass them all.

It is related on good authority that one foreigner who was undergoing this tedious ordeal, after calling at the place for examinations several times, finally found two members of the commission present. Locking them up in a room, he went out to hunt for the third member and, when he returned with him, found to his astonishment that one of his prisoners had made his escape through a window. From what I saw and heard in Buenos Aires, I think a good American surgeon with a knowledge of the Spanish language would soon build up a large and remunerative practice, although among general practitioners the desire to operate is as strong here as in other countries where surgery is overshadowing medicine.

* This series of articles was commenced September 14.

The members of the medical faculty of the university who teach the practical branches are leaders in private practice, as the title professor is looked up to and respected by doctors as well as the public. There are a number of women physicians in Buenos Aires engaged in the practice of medicine, the most prominent of whom are Miss Cecilia Grierson, president of the National Society of Obstetrics, and Miss Rose Pawlosky and Miss Petrona Eyle.

The medical societies of Argentina are rather numerous and cover a wide scope of scientific work. I will give the name of each with that of its respective president:

Fn'd.	Name of Society.	Name of President.	No. of Mem.
1891	Sociedad Médica Argentina.	Dr. Angel M. Centeno	246
1875	Circulo Médico Argentino.	Dr. José Maria Ramos	313
1900	Centro Estudiantes de Medicina	Mr. Mariano O. Olacinegui	691
1902	Circulo Medico Italiano	Council	39
1903	Asociación Obstetrica Nacional	Dr. Cecilia Grierson	89

The membership of all these societies appears very small when we consider the number of Argentine doctors. It is said the meetings are usually not well attended and that most of the time is occupied by the reading of papers. The discussion of the subjects presented receiving neither the necessary time nor attention.

MEDICAL JOURNALS OF ARGENTINA.

Fn'd.	Name.	Publication.	Editor.
1877	Anales del Circulo Médico Argentino	Monthly	Dr. Manuel A. Santos
1895	Revista de la Sociedad Médica Argentina	Transactions	Dr. D. J. Cranwell
1896	Semana Médica	Weekly	Dr. Diógenes Decoud
1898	Anales del Departamento Nacional de Higiene	Monthly	Dr. Telémaco Susini
1899	Revista del Hospital de Ninos	Half yearly	Dr. Antonio Arraga
1901	Anales de Sanidad Militar.	Monthly	Dr. Marcial V. Quiroga
1901	La Salud		Dr. F. R. Davison
1900	Revista del Centro Estudiantes de Medicina	Monthly	Mr. F. S. Shleisinger
1904	Archivos Psiquiatria y Criminologia applicados a las Ciencias a fines, etc.	Bi-monthly	Com. of Publication
1905	Argentina Médica	Weekly	Prof. Julio Méndez
1903	La Lucha Anti-tuberculosa.	Monthly	Senora Regina S. de Teich
1903	Revista Obstetrica	Bi-monthly	Dr. E. R. Coric

All of these medical journals are published in Buenos Aires.

STUDENTS' LABOR UNION.

The students' medical society has the largest membership and is a union labor organization. Two years ago the students were displeased with some of the professors and methods of examination and went on a strike. The medical school was closed for two years and was only recently reopened after the students had carried most of the points in question, including a change in the deanship.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF ARGENTINA.

The University of Buenos Aires was founded in 1821 as a national institution. Most of the various departments are within a short distance of the site of the university, 236 Peru Street, where the lectures on the exact, physical and natural sciences are still given. The law department is in a handsome new building, 350 Moreno Street, and the small open square or court before it is graced by the bronze statues of two former renowned professors, Drs. José Maria Moreno and Antonio E. Malaver.

The location of the medical department (Fig. 17) is at 2180 Cordoba Street, the chairs of philosophy and letters at 430 Viamonte Street, and in the same building the general offices of the university are located. The general government has been liberal toward this, its principal educational institution, and the scope of its work and the efficiency of its departments are being continually enlarged and increased. It is the principal seat of learning in South America at the present time.

The new medical school on the site of the old building, now nearing completion, will be one of the finest and most practical structures of its kind in the world. It will include in one great square building all of the departments so that the students will lose no time in going from one to the other, as is the case with some medical schools, especially those of Germany. The building when finished will have cost $750,000. The basement is constructed of solid granite, the walls of the two stories of rough brick and cement. The façade is handsome and made attractive with figures and designs in stucco, indicative of the nature of the building. The flooring throughout the building is of tiles and mosaic and the inside walls are as smooth as glass, made so by a coating of marble cement. Both stories face a street on the outside and a large open square or court on the inside, and from a portico on each floor which runs all around the court, the different lecture rooms, laboratories, offices, library, etc., are entered.

The elegant lecture room for the teaching of anatomy is finished and is already in use. It has 221 seats as comfortable as any opera house. The dissecting room is flooded with light, as clean as an operating room, and is supplied with 26 marble tables and furnished with all facilities for keeping the tables and tile floor absolutely clean. A very large refrigerating room in the basement for the storage of material is now nearing completion. From here the bodies are conveyed by elevator to the lecture room above. The faculty room is elegantly furnished and on its walls are hung the splendid portraits in oil of the distinguished deceased members of the faculty. A large hall for public exercises has a seating capacity for about 400. All of the stairs throughout the entire building are made of marble, are broad and have an easy decline.

I visited and inspected the following laboratories: Histology, physiology, chemistry, toxicology, pathology, bacteriology, hygiene and sanitation, all of them well supplied with instruments and apparatus for scientific research work and teaching. The professor of each of these departments has a small laboratory of his own adjoining the one used by the students.

The library for the use of students and faculty contains about 24,000 volumes. I was pleased to see half a dozen students making use of it at the time of my visit—somewhat late in the afternoon. The present number of students is 2,300, among them being 40 women.

I found two of the women students in the physiologic laboratory at work experimenting. A big frog nailed by its feet on a piece of board was dead; it had given up its life to enrich the brains of these two ardent students in their endeavor to discover the mysteries of life. A small mongrel dog was stretched out on a small vivisection table profoundly under the influence of chloroform, its breathing almost imperceptible—not more than ten times a minute. A bloody perforation over the region of the heart showed where this organ had been punctured to demonstrate things which were probably well known centuries ago. These women students with bloody hands and bloody aprons seemed to be intensely interested in what they were doing at a time when their male classmates were taking their outdoor recreation. This is a characteristic of the woman medical student, and goes far to explain why they nearly always come out at the head of the class at the final examinations.

THE MEDICAL COURSE.

One of the conditions of admission into the medical school is a degree from the university. The medical course extends over seven years. Each candidate for graduation must prepare a thesis, which, if accepted, is printed. The examinations in medicine are given in five terms, grouped according to the following subjects:

Biologic Sciences	First term.	Zoology, botany, anatomy and histology.
	Second term	Analytic and biologic chemistry, biologic physics and physiology.
Medical Sciences	Third term.	General pathology and clinics, pathologic anatomy, materia medica, therapeutics and toxicology, hygiene and bacteriology.
	Fourth term	Surgical pathology, including clinics in genitourinary, skin and venereal, nose, ear and throat diseases, topographic anatomy, operative surgery, ophthalmic and surgical clinics.
	Fifth term.	Internal medicine, comprising nervous and mental diseases and clinics; medical clinics including pediatrics and epidemic diseases, legal medicine, and obstetric and gynecologic clinics.

The first term studies are subject to examination at the end of the second college year, before two boards of examiners.

one for zoology and botany and the other for anatomy and histology. The last two subjects are taken as one, save where a deficiency is noted in either. The examinations are both theoretical and practical and last ten minutes. The examination in anatomy and histology is practical and lasts half an hour, both being taken as one examination, before one board. The second year's subjects are called for examination at the end of the third year. There are two boards, one for chemistry and the other for physics and biology. These examinations also are both theoretical and practical, and last half an hour. Examinations in the studies of the third term are given by four boards. They are both theoretical and practical and each lasts twenty minutes. They are held at the end of the fourth year. The examinations of the fourth term are held at the end of the sixth year and are given by four boards:

1. Surgical, pathology, theoretical and practical, half an hour.
2. Topographic anatomy and operative surgery, practical, twenty-five minutes.
3. Ophthalmology, clinical, one-quarter of an hour.
4. Clinical surgery, practical, one-half an hour.

Examination in the subjects of the fifth year are given at the end of the seventh year, before four boards:

1. Pathology, one-half an hour, theoretical and practical.
2. Legal medicine, one-quarter of an hour, theoretical and practical.
3. Obstetric and gynecologic clinics, one-half an hour.
4. Clinical medicine, one-half an hour.

The last two are essentially practical. At the end of the first and second years the professors hold special examinations and issue certificates of proficiency, and of regular attendance at clinics, taking case histories, making autopsies, etc., for at least eight days. These certificates must be presented before taking examinations in medicine and surgery. In obstetrics and gynecology, certificates must first be presented showing attendance at four labor cases and of having followed cases for at least three days in the official clinics, answering questions of the professor, and of having daily attended the clinics certified to by him. Students who have passed a satisfactory final examination in the subjects of the fifth term present a thesis on some subject which demonstrates their individual work, and defend the propositions contained in it or propositions selected by the examining board in an oral examination not to exceed half an hour.

Graduate physicians licensed by this faculty, who desire to take up any special work may after proper registry pursue the same in the clinics of the faculty, and at the end of a year's work, certified to by the respective professor, an examination before a special board is held. This examination requires tests of proficiency on the part of the candidate. If he passes the examination creditably a certificate of special competency is issued. The boards for these examinations are presided over by an academician, and are composed of professors of the subject studied. The examination for foreign graduate physicians is given in the same order and after the same classification as for students of the college. In case of deficiency the examinations are subject to the same rules as apply to the students of the medical school.

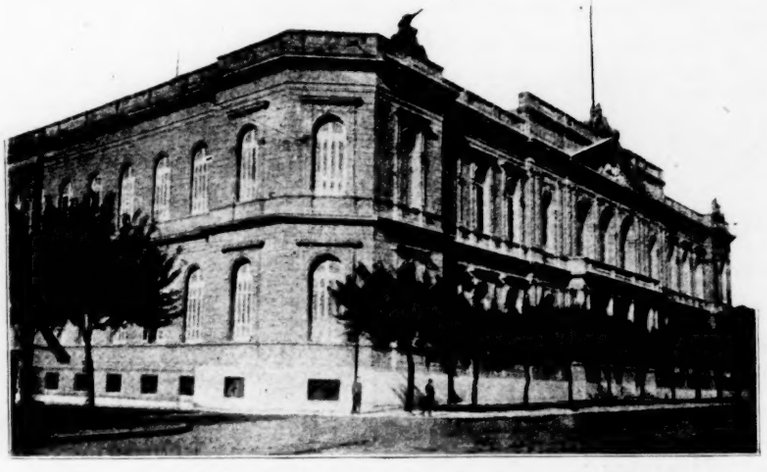

Fig. 17.—Medical Department of the University of Buenos Aires.

SCHOOL FOR MIDWIVES.

The medical college has a separate department, under the charge of two professors, for the education of midwives. The course of study is two years. The practical training and teaching is conducted in the Maternity Hospital adjoining the college. This hospital has fifty beds and in it 550 to 600 women are delivered annually. The pupils attend the clinics in this hospital the second year, their first year consisting of theoretical teaching. They are divided by numbers (odd and even) into two groups which alternate in monthly service from March 15 to November 15. They must attend the normal cases under the direction of midwives, care for the infants and the women in the puerperal state, as directed by the midwives, care for the linen and soiled clothes of their respective wards, see that the patients have nothing in their night stands that is not authorized. They wear a uniform as directed by the management.

PRACTICAL OBSTETRIC WORK.

Two sets of instruments, etc., are kept and employed. One is for the patients already in the hospital, the other for women admitted in labor. No person other than those already detailed are allowed to attend cases except on special order from the director. No person is allowed to make a vaginal examination unless the hands and arms have been disinfected as follows: Wash with alum water and soap, scrubbing well for fifteen minutes, then with alcohol and finally with a mercury bichlorid solution 1-1,000. The external genitals of the woman must also be scrubbed and disinfected. Every person so examined must note the same on the chart. Chloroform may be administered only by a physician. All principals are responsible for the asepsis of their assistants. No septic cases must be brought in contact with the lying-in women and all persons affected with septic conditions must be isolated.

It is very evident from the courses of study laid out and from the character of the final examinations for the degree of doctor in medicine that the faculty has kept pace with the modern methods of teaching and has largely substituted laboratory and clinical work for the older methods of didactic teaching. French textbooks are used almost exclusively by the students and are followed by the teachers, consequently Argentine medicine is in reality French medicine on Argentine soil.

It is to be hoped that more students and teachers will acquire at least a reading knowledge of English in order that they may become more familiar with English and American medical literature. The future prosperity of the South American republics requires a knowledge of the English language, which to-day is the commercial language of the world, and at no distant time will become the recognized language of the newest and best in medical literature.

(To be continued.)

Complement Deviation Test in Ophthalmology.—Leber writes from the Institute of Infectious Diseases at Berlin to extol the great value of the new complement deviation test for the differentiation of ocular affections. The findings are as constant and reliable as a chemical reaction, he says, and cites a number of cases to show the importance of the information thus derived, which enables the proper treatment to be instituted without delay.

Clinical Notes

CANCRUM ORIS.

STEWART L. McCURDY, M.D.
Professor of Orthopedic and Clinical Surgery and Anatomy and Oral Surgery in Western University, Pennsylvania; Orthopedic Surgeon to Presbyterian and Columbia Hospitals.
PITTSBURG, PA.

Patient.—A child, aged 5, had fever beginning June 8, 1905.

History.—On June 22, when the fever had about run its course, the attending physician noticed a swelling of the left cheek. On June 24 the skin over the cheek became glossy.

Treatment.—On June 26 the physician decided that an abscess had formed and made an incision through the mucous membrane over the maxilla of the superior sulcus of the mouth, and to his great surprise the knife passed directly into the bone, which was denuded. With a probe he found that almost the entire external surface of this bone was denuded of periosteum.

On June 30 the epidermis of the cheek, about 1½x2½ inches, came off, leaving a glossy discolored derma vera, which was evidence to him that gangrenous process had begun.

Course of Disease.—At this time I was called and made a

diagnosis of cancrum oris and removed the patient to the hospital, July 1. The history of this case from this time on was that of progression, the gangrenous process rapidly extended into new fields in every direction, so that at the time of the patient's death, July 10, the outer angle of the mouth and the left anterior naris were included; the entire maxilla was destroyed and had the patient lived this would have come away in one sequestrum, since the entire surface was bare as well as the roof of the mouth on the left side.

My idea was to operate by removing the gangrenous tissue just as soon as a distinct line of demarcation was formed and a healthy margin presented itself, but the virulency of the gangrenous process was so great and the extension into new tissue so rapid that this was not possible.

The patient remained in semicoma during the entire course of the disease and died from exhaustion. The odor from the slough was so offensive that the room had to be isolated with antiseptic sheets over the door. A number of physicians examined the case with me and took a number of photographs at different stages, but the one shown is typical.

CASE OF CEREBRAL HERNIA.

E. F. TALBOTT, M.D.
GRINNELL, IOWA.

The infrequency of cerebral hernia justifies me in giving the following report:

History.—Boy, aged 16, was brought to my office Dec. 28, 1906, suffering from gunshot wound of the head. He was semi-conscious, had vomited freely and was in a condition of shock.

Examination.—Two small holes were found in the scalp a little to the left of the crown of the head and about one and a half inches apart. Between the openings was a well-defined depression. The arm and leg of the right side were paralyzed as were also the bladder and rectum.

Treatment.—The head was shaved and a temporary dressing put on to allow him to recover from the shock. The following morning the boy was anesthetized, the scalp opened and a small opening in the skull about ½ inch in diameter was found. A portion of the inner table, which was depressed, was removed, together with several small spicules of bone, and the wound closed with drainage. In a few days pressure symptoms necessitated the reopening of the scalp when a hernia protruded which relieved the pressure symptoms. A sinus leading into the brain was discharging pus. The boy's condition remained about the same for nearly a month when in the bottom of the sinus I found about 1/3 of a 22 caliber bullet; the bullet had evidently been cut by the bone of the skull, two-thirds of it being deflected and one-third going into the brain. The discharge of pus now lessened and the hernia became larger; the boy could retain no nourishment

and the paralysis still continued. Pressure symptoms, due to organization of the hernia, again demanded attention and the hernia was removed. The pressure symptoms disappeared and the patient began to improve, but the hernia again appeared and grew larger. Ten days later it was again as large as an orange at which time the accompanying illustration was taken. The boy's condition improved until April 6, when he had a chill, developed a high fever, became cyanosed and dissolution seemed imminent. On probing I located an abscess and drained it after which he again improved until May 25, when he began to fail rapidly. I again removed the hernia entire at the same time evacuating another abscess that extended well into the brain. The opening in the skull which was originally but ½ inch in diameter had, due to pressure absorption, become 1½ inches in width. The hernia was covered with a firm, well-organized tissue about ⅛ or ¼ inch thick. The scalp extended on one side of the hernia for at least one inch.

The wound is now entirely healed and the boy enjoys good health and is perfectly well mentally. The paralysis of the bladder and bowels has disappeared but the fore-arm and leg are still paralyzed, and he is unable to walk without assistance.

Tonsillitis.—Holt, in *Northwest Medicine*, states that rheumatic and gouty disease of the tonsils differs from other forms of these conditions principally in the cause, and are to be treated like other cases of rheumatic and gouty inflammation in addition to local treatment. Syphilis, primary, secondary or tertiary, may attack these glands, and like the disease elsewhere must be treated specifically.

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[For other information see second page following reading matter.]

SATURDAY, OCTOBER 26, 1907.

THE OPSONIC INDEX IN CERTAIN ACUTE INFECTIOUS DISEASES.

The study of specific opsonic indices in certain acute infectious diseases appears to give interesting results. Thus it has been found by Wolf[1] and by Macdonald[2] that in pneumonia the pneumococco-opsonic index undergoes definite changes. Both of these investigators found that in the early stages of pneumonia the index is below normal, but at about the time that the crisis occurs in the typical cases the index rises considerably above normal, to which it gradually returns in the uncomplicated instances. In cases rapidly fatal both these observers found the opsonic index to remain below normal.

The observations on the index for streptococci in scarlet fever which have been made by Tunnicliff[3] in Chicago, and by Banks[4] in Great Britain, have given analogous results. Both found that in cases of scarlet fever running fairly typical courses the streptococco-opsonic index is below normal during the early febrile period, then rising above normal, sometimes quite markedly so soon as the fever and other acute symptoms subside. The return to normal in the uncomplicated cases appears to be gradual. Banks found that in fatal cases with severe angina the opsonic power was materially reduced. Complications of various kinds, particularly those that are attributable to secondary streptococcal infections, are usually associated with a definite fall in the index, which rises again as the complications subside. Banks believes this to be true also in the nephritis of scarlet fever, and he regards the depression as supporting the view that the renal lesion is the result of streptococcal infection or intoxication. Many further observations must be made in complicated and fatal cases, both early and late, before the diagnostic and prognostic value of the streptococco-opsonic index in scarlet fever can be determined.

The fact that independent observers have obtained the same general results may be fairly interpreted as indicating that the methods used for determining the opsonic index in these conditions are, on the whole, within certain limits, trustworthy, especially inasmuch as the variations in the index correspond quite closely with what one would have the right to expect would be the case on clinical, experimental and other grounds.

Finally, emphasis may be made of the definite relationship which the results of the determinations of the streptococco-opsonic index in scarlet fever indicate between the streptococcus and scarlet fever. Judging from the variation in the index, a scarlet fever patient is from the beginning the subject of a definite streptococcus infection. This result is in full harmony with the outcome of the bacteriologic studies of scarlet fever, which have shown that there is a distinct increase in the number of streptococci on the tonsils in this disease and that, in many instances, streptococci enter the tissues of the tonsils and from there pass into the lymphatic and general circulation, giving rise to regional and remote localizations and streptococcemia. But the claim that scarlet fever is a streptococcus disease, pure and simple, is nevertheless, hardly warranted in the present state of our knowledge.

1. Jour. Infect. Diseases, 1906, iii, 731.
2. Aberdeen University Studies, 1906, No. 21, p. 365.
3. Jour. Infect. Diseases, 1907, iv, 304.
4. Jour. Path. and Bact., 1907, vol. xii, 113.

LEGAL REGULATION OF MEDICINE.

Now that we are in the midst of well-directed and promisingly successful efforts to regulate medical education and the practice of medicine, as well as the allied department of pharmacology, it is interesting to read the first law that attempts the regulation of these subjects in modern times. This is the famous law issued by the German Emperor, Frederick II, in 1240, when he was the ruler of the two Sicilies, that is, Southern Italy and Sicily proper, and wished so far as possible to maintain the standards of medical teaching in his domain, on a level with those which already existed at Salerno and at Naples. This law was published in its entirety only a few years ago by Robert von Toeply in his "Studies in the History of Anatomy in the Middle Ages," published in Leipsic. It is evident from its wording that practically all the problems which we are facing at the present moment, and for whose regulation definite efforts are being made, had also presented themselves to these men of the Middle Ages. The law has, indeed, many rather unexpected anticipations of a series of things that we are apt to deem most modern in the deontology of medicine.

For instance, with regard to preliminary education, the law declares that "men can not learn medical science unless they have a preliminary training in logic," and that, therefore, no one should be allowed to take up the study of medicine until he had spent at least three years—emphasis is even laid on the fact that they should be three full years—at the study of logic. Under the term logic were included grammar and philosophy, with ethics and certain of the social sciences, such as are now included in most undergraduate departments. With regard to medical education, the student was required to spend at least three years in the study of medicine itself. He was not allowed to practice surgery unless in addition to this he brought evidence of having spent a year

in the special study of this department of medicine, and he must above all present a certificate of having learned, in properly appointed schools, the anatomy of the human body "without which surgical operations can not be successfully undertaken and fractures can not be properly treated."

In order to secure the enforcement of these regulations it was decreed that those who practiced medicine, except in accordance with this law, were liable to punishment by confiscation of their goods and a year's imprisonment. Only those were to be licensed to practice who had graduated in Salerno or in Naples. There was even an additional regulation against fake medical schools. No one in the kingdom was allowed to give lectures in medicine or in surgery except in Salerno or in Naples, nor was any one allowed to assume the name of teacher, that is, master or doctor in medicine, unless he had been thoroughly examined in the presence of a state official and of a master of the art of medicine of one of the medical schools.

Probably even more interesting than these regulations with regard to medical education are the clauses of the law which refer to apothecaries and to the relations of physicians and apothecaries. Physicians were bound by the law to lay proper information before the authorities whenever they discovered that apothecaries were not furnishing drugs up to the proper standard. Physicians were not allowed to make any partnership arrangements with apothecaries, nor for any pecuniary consideration was the physician allowed to take an apothecary under his protection (!). Apothecaries were not allowed to prescribe for patients themselves, and were required to take oaths that they would fill the prescriptions of physicians with absolute exactness, and that they would not set these prescriptions for sale nor abuse their privileges. The whole law as quoted by von Toeply reads so much like some recently issued recommendations of the committee of a live, modern medical society as to make one realize, more perhaps than in any other way, how true it is that there is nothing new under the sun—not even in the regulation of the practice of medicine.

TUBERCULOSIS NURSING.

The ever recurring question as to what is to be done with a tuberculous patient in whom the lesion is presumably healed or the process arrested makes all suggestions as to suitable occupations for these individuals most heartily welcomed. The opportunities and advantages offered to a certain number of women of this class in the field of special tuberculosis nursing is described by Hatfield in the October *Journal of Outdoor Life*, and, while the proportion of ex-patients who are fitted to undertake this work is necessarily small, the suggestion should come as a happy solution to the problem in many instances.

For over three years the Henry Phipps Institute in Philadelphia has conducted a training school for tuberculosis nurses, which has been largely recruited from the discharged patients of the White Haven Sanatorium. A certain amount of preliminary education and natural aptitude is required for this work, but it is found that women who have themselves been under treatment are peculiarly fitted for it. They possess a familiarity with the details of the treatment which even the physician could hardly hope to acquire without going through it himself. Little ways of making the outdoor life easier, of taking the prescribed amount of nourishment without inconvenience, etc., have been learned by long association, and, as Hatfield remarks, the patient has constantly before him an example of what may be accomplished by perseverance and fidelity to the prescribed treatment.

The work is carried on under conditions that are almost ideal from the standpoint of the nurse. She will naturally spend most of her time out of doors; it should not prove difficult to provide for suitable nourishment, either in institutional or private work; and her time and thoughts are fully occupied, although the importance of living a proper life is kept constantly before her. When to all these advantages is added the fact that she is independent and self-supporting, it becomes evident that here is a very suitable occupation for presumably cured tuberculous women.

The demand for nurses especially trained in tuberculosis work—a work that requires special qualities and training more than almost any branch of nursing—for hospitals, sanatoria, dispensaries and for private work is now considerably greater than the supply, and nurses so trained find no difficulty in obtaining employment. The plan adopted at the Phipps Institute of training ex-patients to meet this demand seems eminently appropriate from every point of view and might well be followed by other institutions for the care of the tuberculous.

THE CUTANEOUS TUBERCULIN REACTION.

Mention has been made in these columns of the discovery by v. Pirquet that tuberculin applied to the skin may give rise to a distinct local reaction which has been interpreted as indicative of the existence of tuberculosis. In view of the great practical importance that a reliable test of this nature would have, the question naturally presents itself whether or not in this case it actually concerns a specific reaction. In order to answer this question it must be determined whether or not those persons in whom the application of tuberculin to small abrasions in the skin does not give rise to any reactions are free from tuberculosis and if those in whom definite reactions develop in reality are tuberculous. Naturally, a long time must elapse and much careful work must be done before these questions can be answered finally. At present the most important question would seem to be

whether all those who give the reaction are tuberculous or not. In one of v. Pirquet's cases in which a reaction had been observed during life no tuberculous lesions were discoverable postmortem. On the contrary, the conditions were characteristic of "status lymphaticus," and v. Pirquet concludes, somewhat hurriedly it would seem, that there must be close relations between the status lymphaticus and tuberculosis.

Engle and Bauer[1] studied the reaction in forty-eight nurslings, in six of whom there was a typical reaction. Of these, however, there was good evidence that five were free from tuberculosis. In one there was no sign of tuberculosis at the autopsy. In four others there was no reaction after the diagnostic injection of tuberculin at the same time as they were free from all clinical symptoms of the disease. In the sixth child tuberculin injection gave a typical reaction. On account of these observations it is self-evident that a positive cutaneous tuberculin reaction in nurslings and in young children will merit careful consideration before it is recorded as specific, and many further observations are necessary, of course, before final conclusions may be drawn. The test was also applied to 280 children between the ages of 3 and 14 and the results in this series were more satisfactory in so far as they indicated a close connection between a positive reaction and tuberculosis. The clinically recognizable cases of tuberculosis gave without exception positive reactions and the general distribution of positive reactions among children of different ages corresponded well with what is known in regard to the occurrence of tuberculosis in those ages. In some of the children rather violent reactive phenomena were observed, such as papules of a diameter of from 10 to 12 mm. and lesions that resemble closely the so-called tuberculids.

These observations would indicate that there is a close connection between v. Pirquet's reaction and tuberculosis in general, but that in nurslings a positive reaction does not now appear to permit a definite diagnosis of tuberculosis. The method seems well fitted for the study of the dissemination of tuberculosis, but as a crucial method of diagnosis in difficult and doubtful cases the cutaneous application of tuberculin does not seem to possess any special advantages over diagnostic tuberculin injection, and especially does this seem to be the case with respect to nursing children.

1. Berl. klin. Wochschr., Sept. 16, 1907, p. 1169.

THE CEREBROSPINAL FLUID IN PARETIC DEMENTIA.

A study of the cerebrospinal fluid obtained by lumbar puncture has yielded interesting and important results in the diagnosis of disease of the central nervous system. The changes noted affect especially the appearance of the fluid, its amount, the pressure to which it is exposed, its proteid content and the number and character of the contained cells. An investigation of these conditions in a considerable group of cases of paretic dementia has been undertaken by Dr. W. B. Cornell,[1] who reaches the conclusion that the pressure may be considered a negligible factor, as it was found not to depart from the normal in thirty-four cases. The amount of albumin in the fluid in thirty-one consecutive punctures was increased, but no constant relation could be made out between the amount of proteid and the stage of the disease, although generally speaking the increase was proportionate to the stage of the disease. The increase in proteid was invariably associated with an increase in the number of cells.

Such a cellular increase was present without exception in fluid obtained from thirty-seven punctures made in twenty-five cases. The cells included small lymphocytes (from 45 to 95 per cent.), large lymphocytes (average 4 per cent.), polymorphonuclears (average 18 per cent.), epithelioid cells (infrequent and accidental), plasma cells (average 1.5 per cent.), degenerated cells (frequent). No particular differential combination could be correlated with any one stage of the disease, except that after convulsive seizures a marked relative and absolute increase in the polymorphonuclears was observed. The blood itself also exhibited a lymphocytosis —a fact to which attention hitherto has not been called. Further, there seemed to be a numerical relation between the lymphocytes of the blood and those of the cerebrospinal fluid. As the result of his observations, Dr. Cornell concludes that every case of paretic dementia exhibits a leucocytosis of the cerebrospinal fluid, with an increase in the amount of albumin present.

From the point of view of its constancy this sign is probably the earliest phenomenon in the disease. The diagnostic value of a negative lumbar puncture is often of greater value that that of a positive puncture. Enumeration of the cells in a known dilution by means of a specially marked slide is more accurate and can be done more rapidly than examination of the sediment obtained by centrifugation, and it has the great advantage of permitting comparative observations. The use of Unna's polychrome blue in the mixer permits of a simultaneous differential count. A differential count is important in differentiating fluid from cases of paretic dementia from that derived from other forms of disease, especially when the cytosis is due to a small number of polymorphonuclears. The conditions under which syphilis gives rise to spinal leucocytosis demand further investigation, especially with regard to the number and the character of the cells. The increase of cells in the paretic fluid is apparently independent of any long antecedent syphilis. There seems to be a correlation both qualitative and quantitative between the spinal and hemic leucocytoses, which refers particularly to the mononuclears, but includes also the polymorphonuclears, especially in the sequence of convulsive seizures.

1. Amer. Jour. of Insanity, July, 1907, p. 73.

THE CONQUEST OF THE MOSQUITO.

A physician who recently inspected the Panama Canal workings reported, it is alleged, that during his six days' stay in the canal zone he never saw or heard a single mosquito. There are more mosquitoes, he is reported as saying, in any of our city parks than in the canal zone. This is independent testimony to a fact that would have been considered impossible a short time ago by any one at all conversant with what might be called normal conditions on the Isthmus. If the mosquitoes are absolutely suppressed in that locality after the three months' rainy season, there is practically no place in the tropics outside of irreclaimable swamps or the flooded bottoms of great rivers like the Amazon where a like result can not be obtained. The habitability of the tropics depends on the suppression of certain diseases and malaria is one of the chief causes that have rendered them uninhabitable. With malaria conquered, the rest of the task is comparatively easy. The suppression of tropical anemia ought to be a much easier task, and these two diseases are the chief drawbacks that prevent some of the best portions of the world from being centers of wealth and population. Colonel Gorgas' anticipations seem justified if he has eliminated the mosquito.

Medical News

CALIFORNIA.

Osteopath.—A Los Angeles jury is said recently to have found Wilbur R. Dewlin, an osteopath of Pasadena, guilty of practicing medicine without a license. He was accordingly fined $400 by Justice E. E. Self, the judge holding that his license as an osteopath did not give him authority to administer drugs and medicines.

Personal.—Dr. C. O. Gates, Santa Cruz, has started for Europe.——Dr. Winslow Anderson, San Francisco, has been commissioned surgeon general of the National Guard of California, with the rank of colonel.——Dr. Theodore G. Davis, Los Angeles, has been made professor of materia medica and therapeutics in the Medical College of the University of Southern California.

Medical College Opens.—The College of Medicine of the University of Southern California began its twenty-third annual session October 3 with a dinner to the alumni association. The alumni association elected the following officers: President, Dr. Raymond G. Taylor; vice-president, Dr. Peter C. H. Pahl; secretary, Dr. Edward M. Lazard, and treasurer, Dr. Edward T. Dillon, all of Los Angeles. The opening exercises were held at the college building and the Barlow Medical Library was opened for inspection.

Hospital Notes.—Plans and specifications have been submitted for a new hospital to be built at Webster and Hawthorne Streets, Oakland, to be known as the Samuel B. Merritt Memorial Hospital. The structure will cost $80,000.——The St. Francis Hospital Association has recently been incorporated at Eureka and a building has been leased, which is being remodeled and thoroughly equipped. Dr. George N. Drysdale is the president; Dr. Oliver W. Sinclair, vice-president, and Dr. Edward J. Hill, secretary.

Society Meetings.—At the twenty-fourth annual session of the San Joaquin Valley Medical Association, held in Fresno, October 8, the following officers were elected: President, Dr. Thomas DeH. Blodgett, Tulare; vice-presidents, Drs. Robert E. Bering, Tulare; Eugene C. Dunn, Fresno, and Philip N. Russell, Fresno; secretary, Dr. Dwight H. Trowbridge, Fresno; assistant secretary, Dr. William S. Fowler, Bakersfield, and treasurer, Dr. Thomas M. Hayden, Fresno.——The Association of Health Officers of Southern California was organized at Los Angeles September 28, with the following officers: President, Dr. Charles C. Valle, San Diego; vice-president, Dr. Stanley P. Black, Pasadena, and secretary-treasurer, Dr. William W. Roblee, Riverside. A constitution was adopted which permits the affiliation of all persons interested in the work of conserving public health.

ILLINOIS.

Personal.—Dr. Marcus Whiting, Peoria, received severe injuries to the face in a runaway accident recently.——Dr. E. E. Rohrabaugh, San José, has been elected secretary of the Mason County Medical Society, vice Dr. Athel L. Cook, Mason City, resigned.

Medical Society Organized.—The physicians of Hoopeston met recently and perfected an organization to be known as the Hoopeston Medical Society. Dr. Lemuel B. Russell was elected president; Dr. Albert M. Earel, vice-president, and Dr. Robert S. McCaughey, secretary-treasurer.

Communicable Diseases.—The prevalence of diphtheria has caused the public schools of Kemper to be closed.——On account of the prevalence of diphtheria St. Joseph's parochial school, Elgin, where six cases occurred, has been closed.——The president of the board of health of Streator reports that diphtheria is prevalent but under control, and that there is no need for alarm.——Dr. J. C. Westervelt, Shelbyville, has been dispatched to Carrier Mills, Saline County, to investigate a reported epidemic of scarlet fever.——Several cases of smallpox are said to exist in the neighborhood of Deer Creek.

Chicago.

Diphtheria Prevalent.—During the last week 127 cases of diphtheria were reported, with 19 deaths. The disease is very widely spread, more cases being reported in the southern portion of the Stock Yards district than elsewhere. The health department gives warning that an epidemic is to be expected unless quarantine is better observed than at present.

New Hospital.—The Lithuanian-Americans in Chicago are planning a hospital to accommodate 500 patients. Six acres at Forty-sixth Street and Western Avenue have been purchased and an option is held on six acres adjoining. The medical members of the board of control of the institution are Drs. Bayard Holmes, Kasmir A. Butkiewicz and F. Robert Zeit.

To Bar the Sale of Cocain.—Supt. John C. Whitman of the Bridewell, Dr. Alice Hamilton and Miss Jane Addams of Hull House have appeared before a committee of the state legislature to urge the enactment of a law providing a more stringent penalty than at present exists for druggists who sell cocain and its preparations to victims of the habit. The law for which they plead will provide for the infliction of a minimum fine of not less than $1,000, a term of one year in the Bridewell, or both, and further, that any druggist shall, on conviction, be deprived of his license.

Deaths of the Week.—There were reported to the department of health 508 deaths during the week ended October 19, 10 more than for the previous week and 31 fewer than for the corresponding week of 1906. This is equivalent to an annual mortality of 12.57 per 1,000. Among the more important causes of death were: Nephritis, 52; acute intestinal diseases, 51; tuberculosis, 47; heart diseases, 45; pneumonia, 44, and violence (including suicide), 39. Of the communicable diseases diphtheria caused 19 deaths; typhoid fever, 7; scarlet fever, 4; measles, 2, and influenza and whooping-cough, each one death.

INDIANA.

Limit Liquor Prescription.—The Boone County Medical Society has adopted a resolution to limit alcoholic prescriptions to eight ounces of whisky or brandy, and one quart for beer or ale.

Communicable Diseases.—At Kendallville three cases of smallpox are reported.——The diphtheria epidemic at Oaktown is reported to be under control.——The public schools at Whitewater have been closed for two weeks on account of the prevalence of diphtheria.——Diphtheria is said to be prevalent in Gas City.——Typhoid fever is reported to be epidemic in Selma.

New Law in Effect.—The new vital statistics law, passed by the State Legislature, went into effect, October 1. This law requires physicians and midwives to report all deaths, births and infectious diseases they attend on blanks furnished by the State Board of Health. When no doctor or midwife is in attendance, reports are to be made by the people themselves. These reports must be made within 20 days, under penalty of a fine of $10 to $50.

September Disease and Death.—During September typhoid fever was the most prevalent disease. Tonsillitis existed to a greater degree than in September of 1906. Diphtheria stood eighth in the list of prevalent diseases this year and eleventh

in 1906. The total number of deaths from diphtheria was 30. Typhoid fever was reported in 76 counties, with 133 deaths; tuberculosis caused 325 deaths; pneumonia, 93; cancer, 115; and diarrheal diseases, 280 deaths. The total number of deaths in the state numbered 2,751, which is equivalent to an annual death rate of 12.4 per 1,000. Smallpox was reported in seven counties, with no deaths.

Personal.—Dr. Porter Linthicum, Evansville, is reported to be seriously ill with diphtheria in Chicago.——Dr. Charles L. Boyd, Paoli, has sold the Mineral Springs Hotel to Dr. J. H. Groff, Indianapolis, who it is said will open the institution as a sanitarium.——Dr. Walter N. Fowler, Bluffton, has returned from his service with the Walter Wellman polar expedition. ——Dr. Eli L. Schlotterback has been appointed secretary of the board of health of Ligonier, vice Dr. William K. Mitchell, deceased.——Dr. Richard B. Wetherill, Lafayette, sails from Boston, November 2, for a trip around the world.——Dr. Joseph H. Clark, Princeton, had a narrow escape from death in a runaway accident, October 6.——Dr. William N. Wishard, Indianapolis, gave the annual address before the Logan County Medical Society, at Bellefontaine, Ohio, October 17.——Dr. William W. Kemper has succeeded Dr. Harry R. Spickerman as secretary of the Muncie Board of Health.——Dr. C. Richard Schaefer, Indianapolis, has been re-elected supreme medical examiner of the Improved Order Knights of Pythias (German Ritual).

IOWA.

Communicable Diseases.—Diphtheria is reported from Council Bluffs.——The spread of smallpox has caused the closure of the schools of Cartersville.——The schools of Dow City have been closed on account of diphtheria.

Society Meeting.—The Second District Medical Association was organized at Davenport October 15. A constitution was adopted and the following officers were elected: President, Dr. William L. Allen, Davenport; vice-presidents, Drs. John F. H. Sugg, Clinton, and Jasper L. Augustine, Ladora, and secretary-treasurer, Dr. Lawrence W. Littig, Iowa City.

Health Officers to Meet.—The State Board of Health has arranged for a meeting of the local boards of health of the state and the mayors of the different cities in Des Moines November 12 and 13, at which time a school of instruction on the new rules issued by the State Board of Health is to be held. Addresses on sanitation will be delivered by prominent men of the country.

Faith Curists Scored by Jury.—In the case of the death of the infant son of Mr. and Mrs. John Davis, Sioux City, who was attended by an Eddyist and died from summer complaint, the jury returned the following verdict: "We, the jury, on our oaths, say that in our opinions Johnny Davis died of ileocolitis (summer complaint), which should have been cured by proper care and medical treatment."

Personal.—Dr. Matthew U. Cheshire has been appointed city physician of Marshalltown, vice Dr. Hiram L. Getz.——Dr. Herbert S. Miner, Fort Dodge, has been appointed superintendent of the Detention Hospital for Inebriates, Knoxville, vice Dr. W. S. Osborn.——Dr. Samuel Wolf, South Des Moines, has returned from Vienna.——Dr. James C. McMahon, Sioux City, is said to have been committed, on his own motion, to the State Hospital for Inebriates, Knoxville.

KENTUCKY.

Personal.—Dr. Granville S. Hanes, Louisville, sailed for Europe October 19.——The residence of Dr. W. H. Arnold, Franklin, was burned October 14.

County Medical Society.—At the meeting of the Livingston County Medical Society at Smithland, October 9, Dr. John V. Hayden, Salem, was elected president; Dr. Edward Davenport, Hampton, secretary, and Drs. Fred G. LaRue, John V. Hayden and James E. Chipps, delegates to the state medical society.

Medical Library Open.—The Jefferson County Medical Library, originated and maintained by the medical profession of Jefferson County, has been opened to the medical profession. The library consists of the David W. Yandell library and about 50 current medical journals. It is located at room 515, Atherton building, Louisville.

Scarlet Fever and Diphtheria.—The graded schools of Owingsville has been closed for an indefinite period on account of scarlet fever.——Several cases of diphtheria, with two deaths, have occurred near Stithton.——Scarlet fever and diphtheria are reported to be prevalent in Nicholas County, and at Moorefield and East Union the schools have been closed.

Decisions Against Physicians.—In the case of Dr. John Goodman, Louisville, charged with failure to report a birth, Judge Blain construed the state statutes as giving the board of health right and power to demand that all births be reported. He then imposed a fine of $10 on Dr. Goodman.——In the case of Maggie Haynes against Dr. Joseph A. Baute, Somerset, in which damages of $5,000 were asked on account of alleged carelessness and negligence on the part of the defendant in the care of a broken arm, the Superior Court affirmed the judgment of the lower court, which had mulcted the physician in the sum of $1,000.

MARYLAND.

Bequest.—By the will of the late Basil Gordon Thomas, Baltimore, $5,000 is devised to St. Agnes' Hospital.

Consumptives' Home.—The Jewish Home for Consumptives has been organized in Baltimore with Dr. Louis P. Hamburger as president, and Drs. Harry Adler and Joseph E. Gichner as directors. The home will be built on a farm near Reisterstown, Baltimore County, and $35,000 has been provided for the building by Mr. Jacob Epstein.

Tuberculosis Exhibit Burned.—The tuberculosis exhibit of the Maryland Association for the Relief and Prevention of Tuberculosis, which has been collected after the work of several years, was destroyed by fire in the Baltimore & Ohio freight yard at Brunswick. The plates have been preserved and the exhibit will be duplicated.

In Memory of Carroll.—The meeting of the Johns Hopkins Hospital Historical Club, held October 14, was devoted to the memory of Maj. James Carroll, U. S. A. Addresses were delivered by Drs. William H. Welch, Howard A. Kelly and William S. Thayer. Dr. Welch in his address declared that Dr. Carroll was the real hero of the yellow fever commission.

NEW YORK.

Communicable Diseases.—The health department of Syracuse reports that 16 cases of diphtheria have developed recently in that city.——Scarlet fever is reported from Jamestown.

Medical Inspection of School Children.—The new medical inspection in the public schools was put in operation in Albany, October 8. Dr. James F. Rooney is the secretary of the board of inspecting physicians.

Sentenced for Illegal Operation.—Dr. Henry J. Ince, Buffalo, against whom two indictments were returned by the grand jury for performing criminal operations, is said to have pleaded guilty and to have been sentenced to imprisonment for one year in the pentitentiary, October 10.

Census of Defective Eyes.—The State Department of Health has sent to each incorporated village in the state a set of forms with instructions for the examination of the eyes and ears of school children in the public schools. It is proposed to have the teachers conduct the examinations.

Personal.—Dr. Henry Smover, North Tonawanda, suffered severe injuries to his left arm in a machinery accident, October 5.——At the annual meeting of the Ontario County Medical Society there was celebration of the fiftieth year of membership in the society of Dr. L. F. Wilbur, Honeoye. A dinner was given in his honor, at which he was presented with two beautifully hand illuminated volumes.——Dr. Edward Meany, Ithaca, is seriously ill with hemorrhage.——Dr. Frank C. Williams, Syracuse, is suffering from a fracture of the base of the skull, sustained while making a professional call, October 12.

Society Meetings.—The Medical Association of Central New York held its fortieth annual session in Rochester, October 15, when the following officers were elected: President, Dr. Carlton C. Frederick, Buffalo; vice-presidents, Dr. M. P. Conway, Auburn, and Augustus A. Young, Newark; and secretary, Dr. Clarence A. Greenleaf, Canoga. The next meeting of the society will be held in Buffalo.——The Medical Society of St. Luke's Hospital, Utica, at its annual meeting, October 10, re-elected the following officers: President, Dr. William M. Gibson; vice-presidents, Drs. Earl D. Fuller and Fayette H. Peck; and secretary-treasurer, Dr. Andrew Sloan, all of Utica.

State Control of Milk.—The question of putting the responsibility of the inspection of milk and dairies on the state is being agitated. It is evident that state inspection would be far simpler than municipal inspection. For instance, both New York City and Philadelphia get milk from the same dairies, some of them in New York and some in Pennsylvania. Certainly it would be better to have the state look after those dairies than to have both municipal inspectors looking after the same territory. If every city has to furnish its own inspectors, it will result in needless expense and multiplication of officials. It would be wiser to have the state assume con-

trol before each municipality has built up its own system of control and protection.

Sanitary Conference.—The seventh annual conference of the Sanitary Officers of the State of New York was held under the auspices of the New York State Department of Health at Convention Hall, Buffalo, October 16 to 18. Addresses of welcome were delivered by Hon. J. N. Adam, mayor of Buffalo, and W. H. Gratwick, president of the Chamber of Commerce. Dr. Eugene H. Porter delivered the opening address. The second session dealt with the dissemination and control, early diagnosis and treatment, and social aspects of tuberculosis. In connection with this, the first demonstration of the traveling tuberculosis exhibition was given. At the next session the sanitary inspection of wells and their surroundings, the sewage disposal for institutions and small communities and the laws relating to the pollution of streams were considered. At the morning session on October 17, labor legislation in its relation to public health and the law relating to nuisances were discussed. At the first session, October 18, practical points on quarantine were gone over and a symposium was given on the medical inspection of schools. The closing session was devoted to a symposium on pure milk—what health departments can do to secure pure milk.

New York City.

Personal.—Dr. James P. Tuttle has returned from Europe.——Dr. Charles McBurney has retired to his Berkshire home after health-seeking journeys to Southern France, California and the pine woods of Maine.

Course in Obstetrics.—The medical superintendent of the Lying-in Hospital of the city of New York announces a practical course in obstetrics to both graduate and undergraduate students.

Milk Dealers Fined.—Thirty retail milk dealers were fined in the Court of Special Sessions, sums ranging from $10 to $50. Thirteen wholesale milk dealers were arraigned on charges of having unclean cans in their possession. It was shown that the cans had been returned from the retailers and the court held that the latter should have cleaned them before sending them back.

Contagious Diseases.—For the week ended October 12 there were reported 332 cases of tuberculosis, with 143 deaths; 272 cases of diphtheria, with 23 deaths; 164 cases of scarlet fever, with 5 deaths; 163 cases of typhoid fever, with 32 deaths; 114 cases of measles, with 4 deaths; 14 cases of whooping-cough, with 3 deaths; 11 cases of cerebrospinal meningitis, with 8 deaths; and 22 cases of varicella, a total of 1,092 cases and 218 deaths.

Cocain Seller Fined.—For persistent violation of the law regarding the sale of cocain without a physician's prescription, Charles W. Hitch, a druggist at Mott and Worth Streets, is said to have been found guilty in the Court of Special Sessions, October 14, and sentenced to the penitentiary for six months. This individual is said to have sold as high as $100 worth of cocain in a day, and for a time to have kept within the law by employing a physician to prescribe personally for every ten cents' worth of the drug asked for, after an alleged formal examination.

Deaths on Traction Lines.—During September 214 persons were injured in car collisions; 641 in collisions with vehicles; 309 were struck by cars; 503 were injured while boarding cars; 915 were hurt in alighting from cars; 597 employés were injured; derailments caused 23 injuries; injuries on stairways, 35; and other accidents, 1,669, a total of 4,906. There were 56 persons killed, 11 sustained fractured skulls, 7 limbs were amputated, 39 limbs were broken and there were 95 other serious injuries, a total of 208 cases.

Outlines for Dispensary Reform.—Dr. S. S. Goldwater, superintendent of Mount Sinai Hospital and president of the American Hospital Association, has sent a statement to the State Board of Charities, backed by many of the foremost physicians of this city, suggesting a way to bring about a reform in the dispensaries of the city. The object in view is the prevention of overcrowding. The facilities of existing dispensaries can be estimated, normal standard of attendance can be fixed, and the dispensaries can then decline to admit additional patients. If dispensaries then continue to prefer quantity to quality and decline to put voluntary restriction on themselves, the State Board of Charities will be requested to replace the present unlimited license by a new form of license, stating the number of patients a given dispensary with specified facilities will be permitted to admit. Not until some such reform is put into effect can the overcrowding and its attendant evils be overcome.

PENNSYLVANIA.

Opposed to Contract Work.—The Montgomery County Medical Society, at its September meeting, dropped from its roll four physicians of high professional and personal standing for serving sick members of fraternal and beneficiary organizations under contract.

College Opens.—The twenty-fifth annual opening exercises of the Western Pennsylvania Medical College, Pittsburg, were held October 1. The principal address was made by Chancelor McCormack of the Western University of Pennsylvania on "The Ideal Physician."

Fined for Failure to Report.—Dr. Charles L. Gangloff, Pittsburg, is said to have been fined $50 with the alternative of spending 30 days in the workhouse, on the charge of violating an act of assembly in not reporting to the Bureau of Health a case of diphtheria, in which he was the attending physician.

Hospital Celebration.—The annual observance of Hospital Day at St. Luke's Hospital, South Bethlehem, was held October 18. The celebration was the occasion of the twenty-fifth anniversary of the connection of Dr. William L. Estes, the surgeon-in-chief, with the institution. In the evening Dr. Estes was tendered a banquet at the Eagle Hotel.

Tuberculosis Notes.—Dr. Thomas H. A. Stites of the State Health Department has selected a site at York for the state tuberculosis dispensary, the second to be established under the recent legislative act. Dr. Joseph S. Miller, medical inspector of York County, will be in charge of the dispensary. The dispensaries are for the free treatment of indigent individuals afflicted with tuberculosis, and the dissemination of knowledge relating to the prevention of the disease.——The State Commissioner of Health has decided on Pittsburg as the site of a tuberculosis dispensary, which will be located in the crowded section of the city, so as to be accessible to all.

Communicable Diseases.—Scarlet fever is reported to be epidemic in New Boston.——Berlin, it is reported, has an epidemic of diphtheria.——Five families at Primrose are quarantined on account of scarlet fever and the public schools in that place have been closed.——Typhoid fever is reported to be on the increase at Oakmont.——Eight cases of typhoid have recently developed at Canton.——Diphtheria is reported to be spreading rapidly at Bradenville, Snydertown and Atlantic.——Smallpox and typhoid fever are said to have broken out at Pleasantville.——Typhoid fever is reported to be epidemic at Franklin, Minersville, Frackville, Tamaqua, Eau Claire, Paxinos, Lewistown, Westland and Phoenixville.——Cerebrospinal meningitis is reported from Minersville.——Diphtheria is reported to have appeared at Baumstown.

Personal.—Dr. C. J. Barrett has been appointed city physician of Wilkes-Barre.——A complimentary dinner was given recently to Dr. Robert S. Wallace, East Brady, by the physicians of that section, at which a silver loving-cup was presented to Dr. Wallace, who has been in practice for fifty-two and one-half years.——Dr. William T. Phillips has resigned as a member of the Carlisle board of health.——Drs. J. Treichler Butz and William A. Hausman have resigned from the staff of the Allentown Hospital.——Dr. Charles E. Hannan, Johnstown, has been ill with septicemia, due to an operation wound of the hand.——Dr. George W. Wagoner, Johnstown, was operated on October 8, for appendicitis, at the Memorial Hospital.——Dr. J. Frederick Wagner, Allentown, was operated on for appendicitis, October 4.——Dr. Dean S. Brown, Erie, underwent an operation for an injury to the wrist at the General Hospital, September 28.——Dr. Alfred N. Wakefield, Johnstown, has returned from a trip to the Pacific Coast.——Dr. Joseph C. Egbert, Wayne, has been elected president of the newly organized Association of Pennsylvania Railroad Surgeons, East of Pittsburg.——Dr. John Gilbert, York, fractured his right arm above the elbow by a fall, September 28.—Dr. J. Frank Wallis has been elected a member of the staff of Charity Hospital, Norristown.——The home of Dr. Clarence W. Hotchkiss, East Springfield, was burned, it is supposed by incendiaries, October 9, with a loss of nearly $4,000.——Dr. Howard F. Pyfer, Norristown, was recently operated on for appendicitis.

Philadelphia.

Dinner to Dr. Ravenel.—Dr. Mazyck P. Ravenel, who has just returned from Europe, and who left for Madison, Wis., October 19, to take the chair of bacteriology in the University of Wisconsin, was given a farewell dinner at the University Club, October 17.

Stetson Hospital Changes.—At a meeting of the directors of Stetson Hospital, October 14, Dr. Stephen E. Tracy was elected

chief of the gynecologic department to have charge six months each year, alternating with the senior chief, Dr. Charles P. Noble, and Dr. John A. Boger was elected chief of the surgical department to alternate every six months with Dr. Harry C. Deaver.

Smallpox.—The Delaware Breakwater quarantine officials have shifted the blame for the escape of the sailors exposed to smallpox on board the British steamship *Vienna* to the laxity of the officials at Reedy Island. It is believed by the health officers there is no fear of the spread of the disease. The University of Pennsylvania Hospital has been placed under a strict quarantine on account of the presence of a case of smallpox from the steamer.

Free Dispensary Opened.—The Kensington Free Dispensary for the free treatment of tuberculosis, which was organized 18 months ago, has been reopened under the direction of Sister Maria Roeck, formerly of the Mary Drexel Home. Daily clinics will be held under the direction of Dr. J. Willoughby Irvin, assisted in the dispensary work by Drs. George H. Nofer, George H. Gildersleeve, Andrew J. Mueller, Sylvester J. Deehan, Carl D. Camp and Henry W. Banks.

Directory of Tuberculous Cases.—Wallace Hatch, executive secretary of the board of directors for the Pennsylvania Society for the Prevention of Tuberculosis, has finished his work on the bureau of information. This bureau is designed to be a ready reference for immediate help to all who are interested in any of the 10,000 cases of tuberculosis now existing in this city. The employment exchange recently opened by the society ask to be notified of additional opportunities for out-of-door work for cured consumptives. Arrangements have been made for the distribution of educational literature and for public talks on this work throughout the city.

Health Report.—The total number of deaths reported to the bureau of health for the week ended October 19 was 493, an increase of 23 over the number reported in the preceding week and a decrease of 26 from the figures for the corresponding week of last year. The principal causes of deaths were: Typhoid fever, 8; pertussis, 3; diphtheria, 9; consumption, 52; cancer, 27; diabetes, 5; apoplexy, 32; heart disease, 40; acute respiratory disease, 35; enteritis, 34; hepatic cirrhosis, 7; appendicitis, 3; Bright's disease, 31; congenital debility, 14; suicide, 3; accidents, 12, and marasmus, 4. There were 173 cases of contagious disease reported with 19 deaths, as compared with 173 cases and 17 deaths reported in the previous week.

Bequest.—By the will of the late Miss Anna T. Jeanes, $200,000 is left to establish a hospital for the care and treatment of cancer and nervous and other disabling diseases. The institution is to be established in Philadelphia.——The executors of the Dulles estate have awarded $10,000 to the Woman's Hospital of Philadelphia for the building of a children's ward as a memorial to Mary C. Sheves Dulles.——By the will of the late Alexander M. Fox is provided a trust fund of nearly $300,000, the income of which is to go ultimately to four hospitals and a home. The income of the fund is to be divided equally between the Episcopal Hospital, the German Hospital, Pennsylvania Hospital, Children's Homeopathic Hospital, and the Northern Home for Friendless Children.

Personal.—Dr. Hubeley R. Owen has been appointed chief police surgeon, vice Dr. Francis D. Patterson.——Dr. Francis P. Horan sailed for Europe September 26.——Dr. David L. Edsall has been chosen professor of therapeutics in the Medical Department of the University of Pennsylvania, vice Dr. Horatio C. Wood.——Dr. Homer C. Bloom has recovered from an injury recently received while alighting from a street car.——Dr. Harvey M. Righter is confined to his home with pneumonia.——Dr. Henry R. Alburger, formerly demonstrator of pathology in the University of Pennsylvania, has been elected junior professor of pathology in the University of Indiana, Bloomington.——Dr. Marvin P. Stone, interne at the German Hospital, has accepted the position of professor of anatomy in the Medical Department of the Southwestern University, Dallas, Texas.

County Society Opens Its Doors to Non-Sectarians.—At a meeting of the Philadelphia County Medical Society, October 17, a rule was adopted by a vote of 119 to 20 to admit to membership in the society all reputable practitioners of whatever school. The amendment was introduced by Dr. S. Solis-Cohen, and provides that eligibility to membership in the society should be extended to all those legally qualified to practice medicine in the state of Pennsylvania and who had been for at least one year residents of Philadelphia County. Approving the amendment, Dr. Henry Beates, president of the State Medical Board, said that he had made a careful inquiry through the state and was reliably informed that out of the 1,200 graduates of the homeopathic colleges there were only six who were practicing strictly according to the system laid down in their text-books. The remainder, he said, were following substantially the same lines of treatment as regular physicians, and he thinks the time has come when such terms as allopathic, homeopathic and eclectic should be wiped out, for medical education and legal requirements now make it imperative that a new man, when permitted to practice medicine in this state, shall be thoroughly equipped and qualified.

SOUTH DAKOTA.

Delinquent Physicians.—It is reported from Deadwood that a number of Lawrence County physicians have been fined one dollar each for delinquency in reporting deaths.

Communicable Diseases.—Smallpox in virulent form is said to have broken out among the Indians on the Yankton Reservation.——Diphtheria is reported to be prevalent in the district around Watertown, where two residences are under quarantine.

Society Organized.—The Rapid City Medical Society was organized October 1, with six charter members. The following officers were elected: President, Dr. Daniel W. E. Flick; vice-president, Dr. Adolph M. Giffin; secretary, Dr. Frederick W. Minty, and treasurer, Dr. W. E. Robinson.

Personal.—Dr. W. H. French, Vermilion, has been elected to the chair of anatomy and physiology in the College of Medicine of the University of South Dakota.——Dr. Edward T. West, the new governor of the Brushy Mountain Sanatorium, arrived at Hot Springs and assumed his duties.

District Society Meeting.—At a special meeting of the Huron District Medical Society in that city, September 11, Dr. Alonzo E. Clough, Madison, was elected president and Dr. Homer Denman, DeSmet, secretary. A resolution was adopted memorializing the South Dakota State Medical Society to place in nomination at its annual meeting candidates for appointment as members of the state boards of health and medical examiners.

TENNESSEE.

Physician Found Not Guilty.—In the Circuit Court a verdict is said to have been rendered in favor of the defendant in the case of the state against Dr. D. W. McLaurin, Nashville, indicted on the charge of practicing medicine without a license. The defendant admitted that he was not registered and never had been, but stated that he graduated from a medical college and had been practicing for ten years.

East Tennessee Medical Society.—The East Tennessee Medical Society held its seventeenth annual session in Knoxville, September 26 and 27, under the presidency of Dr. Walter S. Nash, Knoxville, who delivered his annual address on "Professional Unity." The following officers were elected: President, Dr. William J. Matthews, Johnson City; vice-presidents, Drs. David Shields, Morristown, and Richard C. Smith, Newport, and secretary-treasurer, Dr. William M. Copenhaver, Bristol. The society adjourned to meet in Newport in 1908.

VIRGINIA.

Society Meeting.—The Elizabeth City County Medical Society at its meeting September 16, elected the following officers: President, Dr. Harry D. Howe; vice-president, Dr. J. Wilton Hope, and secretary-treasurer, Dr. Walter A. Plecker, all of Hampton.

Medical College Opens.—The Medical College of Virginia began its seventieth annual session September 17, with an address by the dean, Dr. Christopher Tompkins, in which he recounted the history of the college, stating that it was one of the first established in the state and the only medical college in the south kept in operation during the Civil War.

Antituberculosis Clinics.—The Antituberculosis League Clinic for Consumptives at Norfolk was reopened September 23, after having been closed for two months on account of the hot weather. The clinic is open between the hours of 3 and 4 on Monday, Wednesday and Friday for white patients, and between the same hours on Tuesday, Thursday and Saturday for colored patients.

Personal.—Dr. Anna Moon Randolph, Newport News, has resigned as secretary-treasurer of the Newport News Medical Society on account of her removal to Camden, N. J. The society, in appreciation of her services, elected Dr. Randolph to a life honorary membership in the society, the first it has ever conferred, and in further appreciation presented her with

a handsomely engraved purse.——Dr. Arthur P. Derby has been elected secretary-treasurer of the Newport News Medical Society.——Dr. William P. Hoy, Petersburg, was thrown from his buggy in a runaway accident September 13, and sustained painful injuries.——Dr. and Mrs. Beverley R. Tucker, Richmond, have returned from Europe.——Dr. J. Edward Harris, Ironville, has resigned as superintendent of the Virginia Sanatorium for Consumptives, and returned to practice at Berryville.

WEST VIRGINIA.

Do Not Wish Names Used.—At a recent meeting of the Kanawha Medical Society a resolution was unanimously adopted requesting the lay press to withhold the names of members of the society in accounts of surgical and medical cases.

Personal.—Dr. Harvey V. Varner, Clarksburg, sailed for Europe, October 8.——Dr. and Mrs. John L. Dickey, Wheeling, have returned after nine months in Europe.——Dr. Spencer S. Wade, city physician of Morgantown, has been elected city health officer.——Dr. Joseph N. Miller, Charlestown, fell recently, breaking two ribs.——Dr. Arthur D. Yoho, Hundred, is reported to be critically ill.

Society Meetings.—At the annual meeting of the Barbour-Randolph-Tucker Counties Medical Society, held at Elkins, September 20, the following officers were elected: President, Dr. Charles B. Williams, Phillippi; vice-presidents, Drs. Harry K. Owens, Elkins and Irwin Hardy, Davis; and secretary-treasurer, Dr. Arthur P. Butt, Albert. An address was delivered by Dr. J. N. McCormack, Bowling Green, Ky., on "Things About the Doctor Which the Doctor and Other People Ought to Know."

Staff Appointments.—The following staff appointments were made by the Charleston Hospital Association at a recent meeting: Eye, ear, nose and throat, Drs. Vincent T. Churchman and Peter A. Haley; genitourinary, Dr. Gideon Timberlake; gynecology, Drs. George C. Schoolfield and John M. McConihay; medicine, Drs. Charles O'Grady and William W. Tompkins; surgery, Drs. John W. Moore and Ira P. Champe; obstetrics, Dr. William R. Hughey; dermatology, Dr. Otis L. Aultz, and laboratory, Dr. Edgar B. Friedenwald.

WISCONSIN.

Physician Exonerated.—Dr. Francis H. Ehlman, Kenosha, who was placed on trial in the Circuit Court on a statutory charge, was exonerated October 5, when the judge discharged the jury on account of the lack of material evidence.

Faculty Changes.—The following changes are announced in the faculty of the College of Medicine of the University of Wisconsin: Dr. Charles R. Bardeen, dean; Dr. Mazyck P. Ravenel, professor of bacteriology; Dr. Norman O. Nelson, assistant in bacteriology, and Dr. C. W. Smith, instructor in bacteriology.

District Society Meeting.—At the annual meeting of the Second District Medical Society, held in Racine October 17, the following officers were elected: President, Dr. Henry J. Stalker, Kenosha, and secretary-treasurer, Dr. Milton V. DeWire, Sharon. The next meeting of the society will be held at Elkhorn.

Epidemic Diseases.—Smallpox is reported to be epidemic in Sand Creek and Dallas.——Smallpox, which has existed in Trempealeau County for the last year, is believed to have been stamped out.——Diphtheria is reported to be the prevalent contagious disease in Superior.——The Indian school at Odanah has been under quarantine for several days on account of an epidemic of diphtheria.

Medical Colleges Open.—The Wisconsin College of Physicians and Surgeons was opened for its fifteenth year October 1 with the following faculty changes: Dr. E. Armor Fletcher, associate professor of genitourinary diseases and surgery; Dr. T. Edward Cavanaugh, assistant demonstrator of pathology and lecturer on embryology, and M. A. Buzwitz, instructor in chemistry.——The formal opening of the Medical Department of Marquette University took place September 30. Addresses were delivered by Dr. Albert Brundage, newly appointed professor of physiology, and other members of the faculty.

Personal.—Dr. A. J. Hoenes has succeeded Dr. C. Pemberton Farnsworth as physician in charge of the Madison Sanitarium.——Dr. and Mrs. John A. Gault, Lancaster, have returned from abroad.——Dr. George E. Newell, Burlington, is reported to be seriously ill.——Dr. Ulysses J. Tibbitts, Prospect, who has been suffering from septicemia at the Knowlton Hospital, Milwaukee, is reported to be convalescent.——Dr. Spencer R. Stone, Rhinelander, was thrown from his buggy recently and sustained severe cuts and bruises.——Dr. George H. Lawrence, Galesville, has returned after a five months' absence abroad.——Dr. Anthony J. Taugher, Milwaukee, has gone to Philadelphia, and will sail for Europe next month.——Dr. Carl F. Bachman, Neillsville, has returned from Europe.——Dr. Victor F. Marshall and family, Appleton, have returned from abroad.

FOREIGN.

The Cholera Situation in Japan.—Dr. Cummings, of the Public Health and Marine-Hospital Service, reports that the cholera epidemic introduced from Shanghai, is spreading rapidly in the southern kens along the Inland Sea.

Plague in South Africa.—An outbreak of pneumonic plague is reported at King William's Town, Cape Colony. The disease is supposed to have been derived from the outbreak at Thomas River in August. Eighty-two rats, including 11 found dead, and 56 mice, including 10 found dead, were examined and several were found to be plague infected.

Cerebrospinal Meningitis in Japan.—A severe outbreak of cerebrospinal meningitis is reported from Sakai, a manufacturing town south of Osaka and across the bay from Kobe. About 120 cases have been reported. This disease has also suddenly appeared in violent form at Tokyo. The sanitary authorities have issued a circular informing the people of the seriousness of the disease and the probability that it is spread by bacteria. Simple instructions as to prophylactic measures are given in the circular.

A Physicians' Sanatorium Planned at Marienbad.—The local medical association at Marienbad has started to organize a sanatorium to which physicians can come for a course of mineral waters and baths and a general rest. Until a special house is provided, physicians will be given rooms free in the residences of the local medical men. It is proposed to give the visiting physician free lodgings and free access to baths, concerts, etc., and to the local clubs, and to have the restaurants and theaters allow a certain discount on their prices on presentation of the sanatorium card.

Organization of International Tropical Medicine Association.—Before the close of the recent International Congress of Hygiene at Berlin, an international association of those interested in tropical medicine was organized. Sir Patrick Manson is the president, and Nuttal of Cambridge is secretary and treasurer. The committee of organization consists of two members from each of the eight countries participating. Two days before this international society was launched the Germans had successfully organized a German Tropical Medicine Association, with Baelz of Stuttgart as president and Nocht of Hamburg as vice-president. The office of secretary was taken by Fülleborn of Hamburg.

Contagious Diseases in the Transvaal.—The prevalence of syphilis and other venereal diseases among the natives of the Transvaal has become so great as to be a serious menace to the community. The *British Medical Journal* states that, recognizing this fact, the government has appointed a commission, consisting of Sir Godfrey T. Lagden, Drs. Charles Porter and Charles Turner, to investigate the matter, to report to what extent contagious diseases are present among the native population, and to submit a definite scheme for the treatment of these diseases suitable to the conditions of life of the population. The commissioners reported that soft chancre and gonorrhea exist to a large extent among the natives in all parts. Syphilis appears to have been introduced as recently as 1881 by a native returning from the mines at Kimberly and has spread widely. Its incidence is variable, as in some districts it is hardly known, while in others the people are affected to the extent of 80 per cent. The spread of the disease is believed to have been assisted by the use of infected knives in the rite of circumcision and by the custom of the natives of inoculating the parents with each other's blood at the birth of a child. It has also been communicated to white children in some cases by infected native nurses. One source of difficulty in dealing with the disease is that the primary symptoms are so slight and the natives have such a disinclination to seek advice, that the disease is almost always in the secondary or tertiary stage before it is discovered. The commissioners recommended that the labor districts, as the source of infection, be placed under a special contagious disease act, similar to that in force in Cape Colony; that a large hospital be established near Johannesburg, with stations in the country districts; that all natives be examined for syphilis, etc., as is already done in regard to vaccination; and that district surgeons be supplied with potassium iodid for free distribution and be paid a monthly sum for the treatment of all pauper syphilitics. It also suggested that natives, other than paupers, shall pay a certain sum for treatment.

LONDON LETTER.

(From our regular correspondent.)

LONDON, Oct. 5, 1907.

The Diffusion of Typhoid Fever.

The discovery made by the late Dr. William Budd many years ago that typhoid fever is largely water-borne and follows the course of brooks and streams from village to village has caused epidemiologists for many years to concentrate their attention almost entirely on this single channel of diffusion and has led to very general and complete protection against water pollution, which at one time was expected to secure complete immunity from the disease. For a considerable time there was reason to hope that this expectation would be fulfilled; for, coincidently with the attainment of a protected water supply, especially in the great towns, the prevalence of the fever steadily diminished year by year. But as time passed, it became manifest that polluted water was not the sole channel of conveyance. Various supplementary hypotheses were advanced to explain the cases which occurred after the water supply had been protected. It was suggested, for example, that the contagion might be distributed by flies or by dust carried by the wind, and that by either of these agencies food might be polluted, or that the bacilli might be inhaled and swallowed. As soon as the recent practice of reporting all cases of infectious diseases was established, the inquiry into the causation of typhoid was facilitated. Dr. Seaton, health officer for the county of Surrey, in his report for 1906, gives some important facts bearing on the problem. During the last 12 years a total of 2,093 cases of typhoid fever have occurred in the county, while there has been no epidemic of water-borne disease to account for them. The prevalence has been endemic in character, that is to say, chiefly made up of solitary cases or of groups of cases confined to one spot (sporadic outbreaks). Dr. Seaton declares it to be very doubtful whether even 10 per cent. of the cases can be said to have been caused by the drinking of a polluted water supply, either in Surrey, where the patients fell ill, or at the place where their illness was contracted two or three weeks before. He calls attention to the invariable tendency of typhoid fever to increase in the autumn season—a tendency which exists whatever be the source of water supply and whatever may be the rainfall. He believes that polluted foods are much more frequent sources of typhoid fever than is generally supposed. The public has long been apprised of the risks from polluted milk, shell fish and watercress. The last annual report for Surrey contains an account of an outbreak of considerable size due to contamination of fish.

Making Certain of Death Before Burial.

The dread of being buried alive often leads persons to make provision in their wills for the making certain of death by getting a physician to open a vein. But the case of a wealthy Jew who recently provided that his carotid artery should be severed or that his heart should be punctured by his medical attendant seems to be almost unique. So particular was he in his directions that he ordered if from any cause this operation should be prevented his body should remain uninterred for fifteen days unless decomposition should have set in before. He directed that $100 should be paid for this operation.

The Registration of Consumptives.

The metropolitan borough of Southwark has distinguished itself by taking the lead of the London boroughs in passing a resolution in favor of the compulsory notification of consumptives—a measure which has been demanded for some time by health officers. This measure has been previously adopted by the City of Sheffield, where it has aroused no opposition from the public, as was anticipated. Two special inspectors were appointed in that city for the purpose of carrying out the measure. When a case of consumption is reported the inspector leaves a copy of instructions with the relatives of the patient and advises them with regard to keeping the windows open, etc. He gets all particulars of the case and pays subsequent visits as often as is necessary, and when the patient is much confined to the house has his room disinfected with a formalin sprayer. In London at present there is only voluntary notification and similar measures are taken.

Ill-Paid Doctors.

The ill-paid condition of a large portion of the profession is unfortunately a very old observation. Even in Shakespeare's time it existed, as the lean apothecary in "Romeo and Juliet" shows. At present it is computed that the average income of the physician in Great Britain works out at something between $1,100 and $1,250 per annum. In a letter addressed to the *British Medical Journal* a physician practicing in an industrial center, who claims to have experienced the average fate of the general practitioner in such a place, gives his experience. He has been in practice ten years and has secured a fair practice in point of numbers. His average receipts are $1,100 per annum, out of which he has to defray the expenses of his practice. The reason for such inadequate payment is of course overcrowding. But the *British Medical Journal* states that this is not the sole reason and that physicians themselves are to blame because through rivalry in the struggle for existence they consent to accept fees unworthy of the work done, and even too low when regarded in the light of the means of those who can pay. The journal suggests that the physicians in each district should agree as to the minimum fees. The obvious objection to this is that it would make the struggle more difficult for those who have not achieved or are unable to achieve a high reputation. Such men are able to live because they are cheap. It is curious that in all the discussions on this trite subject, as in the present article in the *British Medical Journal*, the only and radical remedy is never suggested—limiting the numbers of the profession. This could only be done by raising the standard of qualifying examination and having only one portal of entrance, a high grade state examination. This idea, of course, is not new, but its bearing on the overcrowding of the profession is not appreciated.

Institutions for the Reform of Inebriates.

The recently issued report for the year 1906 of Dr. Branthwate, inspector under the Inebriates Act, contains much information of interest. During the year 404 persons—294 women and 110 men—were committed to reformatories under the act. A large part of the volume is occupied with an account of the machinery which has been gradually created for dealing with habitual drunkards. It consists of ten certified reformatories and two state reformatories. Of the certified reformatories three have been established by the local authorities, six by philanthropic bodies and private persons, and one by the local authorities in conjunction with private persons. Five of the six institutions established by philanthropic bodies are controlled by a single governing body under the guidance of the Rev. H. N. Burden, to whose zeal and ability a tribute is paid. The centralized administration of these five reformatories (known collectively as the national institutions for inebriates) has proved valuable as a means of organizing an adequate system of classification. It has rendered possible the arranging of the several reformatories to meet the needs of different types of inmates, so that after a probationary period in receiving houses the inebriates sent from the courts can be distributed according to the character and prospects in each individual case. Completed by the state reformatories for violent and unmanageable inebriates, this system works ideally. In the reformatories founded by the local authorities, on the other hand, the attempt to deal with all sorts of cases in a single institution gives much less satisfactory results and is much more expensive. In the three reformatories built by local authorities the original cost averages $2,620 a bed, while in those of the national institutions it amounts to $560.

An Injured Knee as a Stock in Trade.

A man named Biten has been sentenced to four years' penal servitude for an extraordinary series of frauds. At one time he sustained a genuine injury to one of his knees, the effects of which remained permanently visible. His method consisted in falling over any rope or open cellar-flap or similar obstruction for which he could claim damages on the grounds of negligence. According to the police, he made these claims at least fifty times and received as compensation sums varying from $75 to $250. This manner of earning a living seems to have been a family secret, for he was discovered in consequence of coming forward to swear that another man named Burton, who had been charged with similar offenses, was dead. The latter failed to surrender to his bail and escaped to America. It was found that the two men were brothers, though they went by different names. When Biten appeared in court to say that Burton was dead he was recognized by the physician of the Ocean Accident and Guarantee Corporation, which happened to be interested for the third time in defending a claim brought by him.

Suggested Union of Health Authorities.

A preliminary conference of the representatives of the sanitary committees of the county councils, county boroughs and municipal boroughs, and port sanitary authorities of England and Wales will be held in London in November for the purpose of considering the question of the establishment of a permanent union of the sanitary authorities of the kingdom into "a supreme national health authority." The need for some such

unification of the health authorities has long been felt, but centralization has never been a feature of English institutions and is now only being slowly adopted; the genius of the people is individualistic. Modern developments necessitate centralization. The present movement originated in Newcastle-on-Tyne, has been endorsed by the sanitary committee of that city, and has been by them referred to the leading sanitary authorities of Northumberland and Durham, who have given it their unanimous support, and have further appointed an executive committee with authority to make the necessary arrangements for the holding of the conference. A circular has been issued pointing out that the absence of uniformity of action on the part of the sanitary authorities generally in the furtherance of questions of public health has long been recognized, and on account of the diversity of interests involved, has been regarded as an almost insurmountable difficulty as well as a cause of much waste of energy and time in attempts to carry out broad measures of sanitary reform. This difficulty—which is in great part due to the isolation of the respective authorities, urban, rural and port from each other and the consequent want of harmony in their individual views—may be minimized, if not entirely overcome, by a combination of these bodies into one great whole for the promotion of the health of the nation at large. The movement would naturally lead to the formation of a new government department of public health with a minister at its head, a reform which has often been demanded by the profession, but in vain.

Failure of a Medical Boycott.

The guardians of the rural district of Wimborne was unable to obtain the services of either of the local physicians for the vacant post of workhouse medical officer because the terms were considered inadequate by the profession and they advertised the post. The Dorset and West Hants branch of the British Medical Association issued a circular to every physician in the district stating that: "The guardians' aim appears to be to try if possible to induce an outside physician to come into the district in opposition to the clearly expressed opinion of all the local physicians," and expressing the hope that through the loyalty of the profession to the common good, and above all, through no other member of the profession being found to apply for the post it would be impossible to obtain a physician on the terms offered. On the receipts of this circular four outside physicians withdrew their applications. However, one man declined to withdraw and received the appointment.

Professor Mendola on Pharmaceutical Training.

At the opening of the sixty-sixth session of the School of Pharmacy, Professor Mendola, F.R.S., delivered the inaugural address. He remarked that pharmacy is the meeting ground of many sciences. The first point which impressed him on considering the course of study arranged for pharmaceutical students was the magnitude of the subjects as compared with the time allowed for their acquisition. During the three years of apprenticeship which preceded the actual course of study, generally speaking, no serious attempt is made to acquire a grounding in the principles of those sciences on which pharmacy is based. The result is that unless during the period of apprenticeship an opportunity is given for attending some elementary science classes the whole burden of the scientific training is thrown on the staff of the School of Pharmacy, or of those establishments which cater for the pharmaceutical student. It is impossible in the course of the eight or nine months, without any previous training, to acquire any great mastery over the sciences of chemistry and physics, botany, pharmacy and materia medica. On looking over the schedule of the school he has found that there is nothing of the nature of cooperation or co-ordination between the various courses. Each professor appeared to carry out his course of instruction independently of his colleagues, involving loss of time from overlapping and repetition. It has always appeared to him anomalous that physiology finds no place in the curriculum of the pharmacist. The training of the pharmacist, as in other matters, has been allowed to fall behind other countries. With the possible exception of Italy and Portugal, the British pharmacist is expected to qualify in a shorter time and with less previous scientific preparation than pharmacists in any other country in Europe.

LONDON, Oct. 12, 1907.

London Medical Exhibition.

An exhibition, known as the London Medical Exhibition, was held recently in the Horticultural Hall, Westminster. The display was a somewhat remarkable one, pharmaceutical preparations, instruments and other medical and surgical appliances, foods, milk in various forms, electric apparatus, hospital furniture, in fact, the entire armamentarium of the physician and surgeon found here a place. American firms were strongly represented, notably medical publishers, who had excellent exhibits, and compared very favorably with their British rivals.

"Patent" and Proprietary Medicines in Great Britain.

It seems as if the medical profession of Great Britain was bestirring itself in the matter of endeavoring to curb, to some extent, the inroads of the "patent" and proprietary medicine manufacturers and vendors. As has been pointed out frequently in British medical journals, the proprietors of nostrums have practically a free hand in Great Britain. So long as the tax is paid, their course is unhampered. Latterly, the United Kingdom appears to have become the happy hunting ground of any one who had a "patent medicine" or a nostrum to exploit. Such an individual might feel certain that few obstacles would be put in his way by the law and that the British public would be sufficiently gullible to swallow decoctions of every description not only cheerfully but eagerly. However, it looks as if a "change were coming over the spirit of the dream," and that, at any rate, medical men and many druggists intend to make a stand against further barefaced exploitation of useless and often deleterious remedies.

Neglect of Children and Consequent Mortality.

A few months ago Mr. George R. Sims contributed a series of articles to the London *Tribune*, dealing with the custom of women in London, and in other British large towns, taking young children and children in arms to saloons and giving them strong drink. These articles created a considerable sensation, and steps are being taken to prevent by legislation this custom. Mr. Sims is now following up these articles in the *Tribune*, and has commenced a series of articles entitled "The Black Stain," which will treat of various phases of child life in Great Britain which tend to augment mortality and to produce degeneration. The fact is that the British people are becoming seriously alarmed at the great increase of mortality and deterioration among the young, and are beginning to recognize the true significance of this terrible wastage of child life.

Women as Physicians; Improvement in Position.

According to Miss Douie, M.B., M.A., secretary and warden of the London School of Medicine for Women, the position of women as physicians is very satisfactorily ahead of what it was ten years ago. In 1897, there were only 223 women physicians who had qualified from the school; the number last year was 443, of whom 316 are working in England and 80 (mostly medical missionaries) in India. About 35 qualify from the school yearly. "The prejudice that once existed against the woman physician," says Miss Douie, "only remains to-day in a limited degree. It results only from ignorance, and wherever it has come in contact with our work it has given way." That statement applies equally to public prejudice and to professional prejudice. "Women's nerves," it used to be said, "will never stand the strain of surgical work;" but "they have," observes Miss Douie. She states that there are no more breakdowns among women physicians than among men. Except Oxford and Cambridge, the English universities are now open to women. Women physicians are in successful practice in most of the large provincial centers.

Open Method of Administering Ether.

The open method of producing ether anesthesia is beginning to find favor in Great Britain. Of course, this mode of administering ether has been practiced in the United States for a considerable time, as also in certain parts of Europe; but up to comparatively recent date the closed methods of giving ether have been the only ones in vogue in Great Britain. Mr. Harold Stiles, the well-known Edinburgh surgeon, who probably operates more largely in the northern portion of Great Britain than any other man, was almost the first, if not quite the first, to introduce the open method into the British Isles. When Mr. Stiles visited Toronto last year for the meeting of the British Medical Association, he met Dr. Mayo of Rochester, Minn., and returned with him to Rochester. He was so greatly impressed with the manner in which ether was administered at St. Mary's Hospital, Rochester, and with the results therefrom, that on his return to Edinburgh he initiated similar methods at his private hospital and has continued to employ them. In London the method has only just been tried. Mr. H. Bellamy Gardner, in a letter to the *Lancet*, October 5, reported that he had obtained most successful results from the open method, and declared that it had proved superior by far to the type of anesthesia yielded by any other method or anesthetic with which he is acquainted.

Therapeutics

[It is the purpose of this department to outline an up-to-date management of disease, to suggest scientific treatment for diseased conditions, and to present prescriptions that are simple, useful and palatable. Prescriptions are written in both the metric and apothecaries' systems, but the amounts of the ingredients are NOT exact translations of one system into the other, but quantities convenient for pharmacist and physician. It should be understood that solids are weighed in grams or fractions of grams, while liquids are measured in cubic centimeters; that a teaspoon holds five cubic centimeters, i. e., more than a fluid dram, hence a 100 cubic centimeter preparation will contain twenty doses.]

Predisposition to Tuberculosis.

Dr. Charles F. Beeson, Roswell, N. M., (*Dietetic and Hygienic Gazette*, July, 1907), calls the attention of the profession to the evident neglect to advise properly the parents of children and young adults who have recurrent and frequent acute catarrhs, either of the nose, throat, or bronchial tubes.

While we do not now believe that high altitude and dry air are necessary in the cure of tuberculosis, certain it is, as Beeson points out, that the changeable climate of many of our larger cities, especially in the New England and Northern states, are not the locations best suited for living out the normal term of life of young people who every winter and spring have prolonged bronchitis and recurrent influenza. Every year the ability of these patients to recover is a little less, with finally a pneumonia or a pleurisy either causing death at the time or tuberculosis as a sequel. Also, many of these patients are tuberculous though positive evidences in their lungs may not actually develop for years. Beeson believes that such patients were never intended to live in rapidly changing climates or in climates that offer hardships, but can live comfortably and long in a climate that is equable and pleasantly warm.

He brings to our notice the fact that "an imaginary band encircling the earth between the thirtieth and thirty-sixth parallels of north latitude" encloses a most beautiful, sunny climate, and says that at the center of this band, viz., the thirty-third degree of north latitude, we have in close proximity such well-known resorts for bronchial and lung patients as Asheville, N. C.; Atlanta, Ga.; Hot Springs, Ark.; Ft. Stanton U. S. Marine-Hospital Sanatorium, New Mexico; Ft. Bayard U. S. Army Hospital Sanatorium, New Mexico; Phoenix, Arizona; and Los Angeles, Cal. The Santa Catalina Islands in the Pacific, Tokio in Japan, Babylon in Syria, Jerusalem in Palestine, Alexandria in Egypt, and Gibraltar and the Bermuda Islands are also at or near this latitude."

Beeson also calls attention to the town of Roswell, in the Pecos Valley in New Mexico, which is situated at the thirty-third degree of north latitude. This valley is about the size of Connecticut, and the city contains 8,000 inhabitants. This region he thinks ideal for the above class of patients.

New Mexico and Arizona certainly present advantages of climate for such patients as above described, and we should never carelessly, for lack of proper advice, condemn a patient to almost certain future tuberculosis.

Intestinal Flatulence.

Dr. Dudley Felton, Los Angeles, Cal. (*Southern California Practitioner*, May, 1907,) gives the views of Dr. Paul Cohnheim of Berlin on this subject.

A certain amount of gas in the intestine is physiologic and may be considered normal. The increased amount of gas due to an exclusive vegetable diet or to the eating of such vegetables as cabbage is also to be regarded as physiologic. Cohnheim believes that flatulence should only be considered pathologic when it causes pain and discomfort. When intestinal flatulence is pathologic it may be due to a nervous affection, organic or functional, or may be due to an inflammation of the intestinal mucosa, or a combination of both, and the treatment of the condition depends on the etiologic cause.

Cohnheim divides the treatment as follows:

1. Limitation of the formation of the gases.
2. Expulsion of the gases and feces in the normal time.
3. Cure of the catarrhal inflammation.
4. Reduction of the increased reflex irritability.

To accomplish the first indication he advises the elimination from the diet of all foods that cause flatulence and the administration of antiseptic drugs. "Cabbage, potatoes, cheese, milk, radishes, peas, beans, lentils, pastry, eggs, goose, duck, smoked fish, eels, salmon, pears, raw plums, salads, fresh breads, mayonnaise dressing, and greasy foods" are prohibited. On the other hand, he recommends "white meats, lean red meats, butter, white bread, well-baked, whole meal bread, spinach, asparagus tips, small amounts of potato soup, small amounts of sweet cream, unsweetened apple and plum marmalade, raw apples, not too sour, almonds, light farinaceous foods with fruit juices."

He believes that menthol is the most effective medication, and prescribes it as follows:

℞.	c.c.		
Tincturæ belladonnæ foliorum	5		fl℥i
Spiritus menthæ piperitæ	5 to 10	or	fl℥i to ℥ii
Tincturæ valerianæ	20		fl℥ss

M. et sig.: Thirty drops, in water, three times a day, after meals.

If there are soft, pasty stools, with flatulence, a rare occurrence, he advises the use of lime salts as follows:

℞.	gm.		
Calcii phosphatis precipitati Calcii carbonatis precipitati, āā	20	or	āā, ℥v

M. et fac chartulas 20.

Sig.: One powder two or three times a day.

Or, if there is diarrhea:

℞.	gm.		
Calcii phosphatis precipitati Calcii carbonatis precipitati Bismuthi subnitratis, āā	10	or	āā, ℥iiss

M. et fac chartulas 20.

Sig.: One powder every three hours.

Or a tannic acid preparation may be combined with the above. To meet the second indication he uses carminatives besides the above peppermint prescription. He orders an infusion made similar to the following:

℞.	gm.		
Fœniculi Cari Menthæ piperitæ, āā	1	or	āā. gr. xv

M. et fac chartulam 1.

Sig.: Add to half a pint of water and make a tea. A cupful should be sipped hot about two hours after each meal.

If the bowels do not act well under the above diet and treatment, they should be daily moved, in strong patients, with a teaspoonful of Carlsbad salts in 200 c.c. of water, taken early in the morning. If the patient is anemic, a vegetable laxative should be used, as compound licorice powder, taken at bedtime, or the following:

℞.	gm.		
Strychninæ sulphatis	.15		gr. iv
Aloini	2	or	gr. xxx
Pulvis ipecacuanhæ	3		gr. xlv
Extracti belladonnæ foliorum	.60		gr. x

M. et fac tabletas 100.

Sig.: Take one tablet after supper.

He also recommends a gentle stroking massage of the colon to get rid of the intestinal gases, and warm sitz baths. He finds cacao butter suppositories, with or without the addition of belladonna, when introduced into the rectum every night

lead to relaxation of the sphincter spasm and better movement of the bowels.

R.	gm.		
Olei theobromatis	40	or	3x

Fac suppositoria 20.
Sig.: Use one at night. Or:

R.	gm.		
Extracti belladonnæ foliorum.....	20	or	gr. iii
Olei theobromatis	40		3x

M. et fac suppositoria 20.
Sig.: Use one at night. Or:

R.	gm.		
Sulphuris precipitati	10		3iiss
Extracti belladonnæ foliorum	20	or	gr. iii
Olei theobromatis	40		3x

M. et fac suppositoria 20.
Sig.: Use one at night.

To meet the third indication, viz., catarrh of the bowel, Cohnheim advises, if Carlsbad or Vichy salts do not improve the condition, that the gastric secretion should be examined after a test meal to ascertain if there is absence or diminution of the hydrochloric acid, and if such is found to be the case he recommends Homburger or Wiesbadener water, or artificial salts made similar to the ingredients of these waters, and these to be taken in the morning instead of the Carlsbad or Vichy. He believes that warm water enemata with one-half teaspoonful of salt to the pint is of advantage in this condition, and advises the patient wearing the Priessnitz's abdominal bandage at night and a woolen abdominal bandage during the day.

To meet the fourth indication, viz., the nervous irritability, may require prolonged rest in the country or in the mountains. He does not advise the seashore. In the first place, every symptom should be carefully investigated to determine whether it has real or nervous origin, and the general diagnosis of hysteria or neurasthenia is not sufficient. Every cause of nervous irritability or upset should be tested and corrected if possible. Cohnheim believes that mildly stimulant hydrotherapeutic measures are of value and suggests at times small doses of potassium bromid and belladonna, as:

R.	gm. or c.c.		
Potassii bromidi	15	or	3iv
Aquæ menthæ piperitæ	100		f℥iv

M. et sig: A teaspoonful, in water, t. i. d., after meals.

R.	gm.		
Extracti belladonnæ foliorum	20	or	gr. iii
Extracti glycyrrhizæ	1		gr. xv

M. et fac pilulas No. 20.
Sig.: One pill three times a day, after meals.

Irish Moss Lemonade.

A soothing, pleasant drink is made as follows: "Take one-fourth cup of Irish moss (chondrus), wash and let it soak in water. After one-half hour pour off this water and add two cupfuls of boiling water. Cook until syrupy, keeping just below the boiling point. If it becomes too thick, add more water. Strain, add four tablespoonfuls of lemon juice, and sugar to the taste. It is best served hot."—"Practical Dietetics," Pattee. This makes an excellent soothing drink for a sore throat or a general cold.

A Nutritive Drink.

Leftwich (*Edinburgh Med. Jour.*, May, 1902) suggests the following as a pleasant, nourishing drink: Take two lemons, which should be peeled twice, the yellow rind alone being used, while the white layer of the peel is discarded. Pour a pint of boiling water on the sliced lemon and outer yellow peel, to which has been added two lumps of sugar. Stir occasionally. When partially cool strain off the lemons, and while the lemonade is being stirred vigorously with an egg beater add the whites of two eggs. This mixture should be well agitated for two or three minutes. While the solution is still warm strain it through muslin. Serve cold.

Pharmacology

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

SALIODIN.

W. A. Puckner and A. H. Clark.

[The Council on Pharmacy and Chemistry refused recognition to Saliodin because it conflicted with Rules 1 and 6, and directed publication of the following.

W. A. PUCKNER, Secretary.]

Saliodin is sold by the Saliodin Chemical Co., Scranton, Pa. In the literature and on the trade package the following "formula" is given:

FORMULA

Each Grs. XX of Saliodin contains approximately:

℞

Salicylic Acid, (Aceto—Salicylate)	Grs. XV
Iodine, (Iodate) Equivalent to Iodide Potass	Grs. XV
Acetic Acid, (Acetate) Equiv. to Acetate Potass	Grs. V
Aconite — Equiv. to	Tr. Aconite R. Gtts. IV
Bryonia — " "	Tr. Bryonia, Gtts. V
Colchicum — "	"Vin. Colchicum R. Gtts. XV
Capsicum — " "	Tr. Capsicum Gtts. II
Oil Gaultheria " "	" " " " m III

This formula being indefinite and vague, the examination of saliodin was taken up in the Association laboratory.

From the analysis[1] which is given in detail below we

ANALYSIS OF SALIODIN.

1. Saliodin is a pinkish powder having an odor of anise and wintergreen and an aromatic sweetish taste. It is freely soluble in water, forming an opalescent solution.

ACETYL-SALICYLIC ACID: While acetyl salicylic acid is soluble in chloroform, none could be extracted from saliodin. While acetyl-salicylic acid is soluble in water to only the extent of 1 part in 100 (New and Non-Official Remedies, 2d Edition, p. 18), saliodin is freely soluble, about 1 part to 3 of water. While a solution of sodium acetyl salicylate gives with ferric chlorid a peculiar flesh-colored precipitate, addition of ferric chlorid to a solution of saliodin produces no precipitate, but gives the characteristic intense violet color of salicylates. Saliodin, therefore, contains neither acetyl-salicylic acid nor a salt of acetyl-salicylic acid.

IODATE: No iodin is liberated on acidulating a solution of saliodin before or after the addition of potassium iodid T. S.; therefore, no iodate is present.

IODID, SALICYLATE, ACETATE: The presence of these acid radicles was determined by the usual tests.

SODIUM and POTASSIUM were found present. Other metals (kations) were absent.

WINTERGREEN and ANISE could readily be recognized by their odor. Since the product is free from vegetable cell structure it no doubt contains the oils of anise and wintergreen.

POTASSIUM AND SODIUM: (a) Conversion to alkali chlorids in the usual manner and estimation of chlorin in the residue gravimetrically as silver chlorid indicated that saliodin contained 12.35 per cent. potassium and 8.22 per cent. sodium.

(b) When converted to chlorids, the potassium estimated in this by precipitation as potassium platinum chlorid and the difference calculated to sodium, the specimen was found to contain 12.01 per cent. potassium and 8.55 per cent. sodium.

Average. Potassium, 12.18 per cent.; sodium, 8.44 per cent.

SALICYLATES. To estimate salicylates, saliodin was dissolved in water and made alkaline with potassium hydroxid T. S. and extracted with chloroform. The solution was then made acid with sulphuric acid and the salicylic acid extracted with chloroform, the solvent evaporated spontaneously and the residue dried over sulphuric acid. The average of two determinations indicated 49.62 per cent. salicylic acid or 49.25 per cent. $(C_6H_4OH.COO)'$.

ACETATE: Acetate was estimated by subtracting from the total alkalinity of the residue after ignition the calculated amount of alkalinity due to salicylate found and calculating the remainder to acetate. The average of two determinations indicated 18.04 per cent. acetate $(CH_3COO)'$.

IODID: Saliodin was heated to destroy organic matter and the residue extracted with hot water. In the solution obtained the iodid was determined by precipitation with silver nitrate in the usual manner. The average of two determinations indicated 0.9 per cent. iodin.

VOLATILE MATTER: Saliodin on drying to constant weight at 130° lost 8.10 per cent.

We deduce from the above analysis that the specimen contains:

	Per cent.
Sodium (Na)•	8.44
Potassium (K)•	12.18
Salicylate $(C_6H_4OH.COO)'$	49.25
Acetate $(CH_3COO)'$	18.04
Iodid (I)'	.90
Volatile matter (volatile oils, moisture, etc.)	8.10

calculate the composition of saliodin to be approximately equivalent to a mixture of:

	Per cent.
Sodium salicylate	57.54
Potassium iodid	1.18
Potassium acetate	30.00
Matter volatile at 130° (oil of anise, oil of gaultheria, moisture, etc.)	8.10
Undetermined (extractive?)	3.18
	100.00

The analysis shows that the formula is not only indefinite and vague, but incorrect and false.

To emphasize the incorrectness of the published formula the following comment on the first two items is offered:

In the "formula" it is stated that 20 grains of saliodin contain approximately "salicylic acid (aceto-salicylate) Grs. XV." The statement is not clear, but conveys the impression that 20 grains of saliodin contain an amount of an aceto-salicylate, a salt of acetyl-salicylic acid (aspirin), equivalent to 15 grains of salicylic acid. But the chemical examination shows that it contains neither acetyl-salicylic acid, or salt of acetyl-salicylic acid, nor even salicylic acid itself. In the place of these, the analysis shows that over half of saliodin is the common, every-day sodium salicylate.

According to the "formula," each 20 grains of saliodin contains "iodin (iodate), equivalent to iodid potass. Grs. XV." This statement, too, is vague, but conveys the impression that 20 grains of saliodin contain an amount of iodin, in combination as an iodate, which corresponds in iodin content to 15 grains of potassium iodid. But the analysis shows that the product does not contain any iodate whatever, and that the amount of iodin contained in it is sufficient to account for only ¼ grain of potassium iodid in each 20 grains of saliodin.

COMMENTS.

The above report is published simply as another example of the "ethical proprietaries" that physicians are asked to prescribe. It is not unique. It is neither better nor worse than hundreds of others.

To show what absurdities appear in the "literature" (?) that is sent to physicians, we reproduce a paragraph from an advertising pamphlet. The promoters' statement as to the composition of the product is absurd, but not more so than are the claims made for it as a therapeutic agent. There is not a "patent medicine" on the market for which any more blatant, extravagant and ridiculous claims are made.

The manner of exploiting saliodin is another illustration of the tendency on the part of nostrum-makers to advertise their wares through pseudo-scientific articles published in a certain class of medical journals. In the pamphlet sent out by the Saliodin company, appears a reprint of an article from the *Philadelphia Medical Summary* of February, 1905. It is entitled "A Similarity in the Etiologic Factors of Rheumatism and Malaria," and was written by J. C. Denston, M.D. In it occurs this statement: "The manufacturers (of saliodin) publish their formula and, *I think*, distribute samples and literature on request." The charming ingenuousness of this statement is fully realized when it is understood that J. C. Denston is the president of the Saliodin company. This is also another illustration of what is now a common occurrence, viz.: men who are engaged in manufacturing proprietary products and who have an M.D. degree use that degree as a commercial asset, and, by this means the average reader is led to think that articles written by them in praise of their own products are spontaneous tributes from practicing physicians.

It is an "Iodated, Aceto-Salicylate with Adjuvants," and the SPECIFIC treatment for every form of URIC ACID DIATHESIS. "Saliodin" is a SOLVENT and ELIMINANT of URIC ACID and is a happy combination of ℞ Salicylic Acid, Iodine, Acetic Acid, Aconite, Bryonia, Colchicum Capsicum and Gaultheria and chemically appears in the form of a PINK, GREYISH POWDER soluable in water 1 to 3—dose grs. X to grs. XXX; for the EXCLUSIVE USE OF PHYSICIANS—put up in one ounce bottles; price PER OUNCE $1.50 Is manufactured ONLY by the Saliodin Chemical Co. "SALIODIN is SPECIFICALLY indicated in RHEUMATISM, GOUT NEURALGIA, MALARIA and LA GRIPPE; is ANALGESIC, ANTIPYRETIC; an INTESTINAL ANTISEPTIC, DIAPHORETIC, DIURETIC, EXPECTORANT, DEOBSTRUENT SIALAGOGUE, CHOLAGOGUE, EMMENAGOGUE, ANTI-SYPHILITIC, GONOCOCOCIDAL, PARASITICIDAL, ASEPTIC, BACTERICIDAL and ALTERATIVE. Doctor, you may prescribe Saliodin with confidence wherever IODINE or a SALICYLATE is indicated. Used both internally and externally.

Note the twenty-one indications for Saliodin as given in the above statement. Lest some condition might be overlooked, we are advised to use it "internally and externally." Isn't this scientific therapy?

Liquid Soap.

At the recent meeting of the American Pharmaceutical Association, M. I. Wilbert presented a formula for a liquid soap which satisfies the requirements of cheapness and non-toxicity. He found that a more soluble product could be produced by a combination of sodium hydroxid and potassium hydroxid than by using either alkali alone. Elaborating on this discovery, he devised the following formula from which a liquid soap can be made for about 50 cents a gallon.

Sodium hydroxid	40 Gm.
Potassium hydroxid	40 Gm.
Cotton seed oil	500 Cc.
Alcohol	250 Cc.
Distilled water, sufficient to make	2500 Cc.

Dissolve the alkalies in 250 c.c. of distilled water, add the alcohol, and then add the cottonseed oil in three or four portions, shaking vigorously after each addition. Continue to agitate the mixture occasionally until saponification is complete. Then add the remaining portion of the distilled water and mix. The product may be perfumed by replacing some of the water by the mixture of oils used as the flavoring ingredients of Liquor Antisepticus Alkalinus, N. F., or Liquor Antisepticus, U. S. P.

Theolactin.

The desire to increase the diuretic powers of theobromin by combination with other diuretics, especially the sodium salts of organic acids, has led to the production of a number of double salts in which sodium formate or sodium acetate, etc., is combined with theobromin. Thus agurin, theobromin-sodium actate (N. and N.-O. Remedies, 2d edit., p. 7), and theophorin, theobromin-sodium formate, have been introduced as possessing advantages over theobromin itself, especially in increased solubility. Theolactin is a similar combination with sodium lactate and according to F. Zernik (*Apotheker-Zeitung*, 1907, p. 532), possesses no advantage over the preparations previously introduced. It has been investigated by Krueger (*Therapie der Gegenwart*, 1, 1907), who finds that its diuretic properties depend almost or quite entirely on the theobromin, it being very doubtful if the sodium lactate takes any part in producing the diuresis. Krueger noticed some inconvenient side effects such as loss of

appetite and vomiting. Theolactin does not seem to possess the degree of solubility of the similar compounds, but is more hygroscopic. According to Zernik it is a white, odorless, very hygroscopic powder, soluble in about sixteen parts of cold water, more soluble in warm water. The watery solution is colorless and has an alkaline reaction to litmus paper. It must be kept carefully protected against air and moisture.

"Patent Medicines" in the German Empire.

A more strict ruling relating to "patent medicines" went into effect Oct. 1, 1907, throughout the German Empire. Its requirements are very drastic and will certainly interfere seriously with the sale of nostrums. The rule requires that each medicine container shall have conspicuously printed on it the name and address of the firm manufacturing it and the name and address of the retailer who sells it. Any printed statement praising the article, or any testimonial or recommendation in the nature of an advertisement or inducement to buy, is expressly prohibited. All druggists or retailers selling such compounds on their own responsibility are required to know the ingredients, and if they do not, or can not, then they are forbidden to sell them, except on the prescription of a physician or dentist. In the latter case a new prescription, signed and dated, is required for each separate supply. The new ruling applies to all "patent medicines" sold in Germany, no matter where they are manufactured, and a long list of the nostrums governed by these restrictions has been circulated by the officials. This list, which is only a preliminary one, contains the names of over 150 "specialties." The following, according to *Printers' Ink*, are a few of them:

Albert's Remedies.
Ayer's Cathartic Pills.
Ba...e's Bromidia.
Beecham's Pills.
Blair's Gout and Rheumatic Pills.
Elliman's Embrocation.
Mariana's Wine.
Morrison's Pills.
Mother Siegel's Curative Compound and Syrup.
Ray's Pills.
Rice's Lymphol.
Vixol Preparations.
Warner's Safe Cure.
Warner's Safe Remedies.
Williams' Pink Pills.
White's Eye Wash.

Correspondence

Apparent Malpractice by Osteopath.

MEMPHIS, TENN., Oct. 5, 1907.

To the Editor:—On Sept. 15, 1907, a woman from out of the city applied for a room at a local hospital, and, on assurance that she could have her own physician, had her brother, W. W. M., a man about 40 years old, brought in in a comatose condition. Her "physician" proved to be an osteopath, a cure-sect legalized in this state, with its own board of examiners. After he had given the patient a "treatment," the nurse in charge of the floor became suspicious and alarmed and asked the resident physician in to see the case. The patient's sister was very resentful and gave snappy and unsatisfactory answers to questions concerning the history of the case. On examination the patient was found to have temperature of 102 F.; pulse was 108, and respiration 34 and stertorous. The pupils were moderately contracted and insensible to light. The osteopath had given a diagnosis of congestion of the lungs and a favorable prognosis. On account of the hostile attitude of the sister of the patient, nothing was done. The next day the osteopath gave another "treatment," and toward noon the patient appeared to be dying. The house physician prevailed on the nurse to induce the sister to leave the room and attempt to get a drop of blood for examination; while she was doing this the patient died, so that only two very imperfect spreads were obtained. One of the slides was examined by Dr. B. N. Dunavant, the other by myself as pathologist to the hospital. I have the slide now. It contained innumerable estivoautumnal malarial organisms, one cell containing six, and several others containing more than one. Approximately, it was more than a 20 per cent. infection, i. e., over 1,000,000 organisms to the c. mm. The patient died of malaria; the osteopath signed the certificate "uremia."

I do not know which vertebra is out of place when a case of congestion of the lungs becomes uremia; I am also unacquainted with congestion of the lungs causing coma and malarial infection. At any rate, this looks to me like a case of manslaughter, for, with fully thirty hours to spare, there was every chance to save this man's life with proper treatment. In the final analysis the benighted individuals who employ such a man are entitled to what they get; still, one can not suppress a feeling of indignation over a state of affairs like this. It seems to me that the legislators who are responsible for such an act should be held liable in some way in order to bring home to them a sense of the responsibility they incur by such pernicious legislation.

The hospital staff held a meeting and resolved to ask the management to close the doors of the institution to all practitioners not recognized by the staff as in good standing.

Some of the staff talked of prosecution. I considered the matter, saw the secretary of the board of health and several influential members of the local medical society, but it was the sense of nearly all of them that with a hostile lay press and the cry of persecution always so successfully raised by all irregular practitioners, it would do no good. Our only hope seems to be in publicity in such publications as are open to us. Our criminal docket is congested and it is not likely that any jury would find for conviction under the present jury laws which put a premium on ignorance.

There is another thing: Within a few blocks of a building that contains offices of forty physicians one can see the signs: "Dr. Tracy, Chronic (sic!) Specialist;" "Drs. Beaver & Co., Chronic Specialists;" "Drs. Harrell & Co.," "Drs. King & Co.," "Drs. Ellison & Ellison," etc., and the daily papers are full of false statements regarding their wonderful powers. Only last Sunday the *Commercial Appeal* had a blazing advertisement of a wonderful madstone that has never failed to cure! Abortifacients take up half a column of the classified ads. The advertising sharks have stool pigeons who are licensed practitioners and claim not to live up to the absurd claims of their employers. Others give all kinds of mechanical fake treatments which the law does not touch. The people are being misled, the sick are being robbed by those who make false promises of relief; the incurable are promised cures, and those who are curable are trifled with till a cure is impossible. Yet our medical practice act touches none of these things. Osteopaths are especially exempted from the provisions of the act, also Eddyites.

Something should be done to protect the public in these matters, but if physicians take the lead they will be accused of acting from selfish motives. But how is the public to be aroused and enlightened on the actual conditions when practically all the newspapers are controlled by these frauds? Our next legislators will be chosen in about eleven months, and, with concerted action, something could be accomplished, but who is to take the lead? WILLIAM KRAUSS.

Viavi and the Churches.

CHICAGO, Oct. 17, 1907.

To the Editor:—I presume that you are in receipt of many letters regarding the so-called Viavi treatment, but here is something which is too good to keep. Charlatanism has always tried to use the churches for financial gain and the perpetrators of the Viavi remedies (?) follow the line.

My better half came home to-day and told me with a twinkle in her eye about the "health talk" that was to be given under the auspices of the ladies' society of our church. A certain company was to furnish the speaker and the advertising, and the society would be paid 10 cents for the name of each one in attendance. When I asked the company's name I learned that it was Viavi.

Perhaps this plan of advertising may result in the forming of a church erected to advertising and dedicated to the holy Saint Viavi! E. P. S. MILLER, M.D.

[This seems to have been the regular custom of this firm for some years, as reported from various parts of the country.—ED.]

A New Disease?—Perhaps Dengue.

ANINO, DURANGO, MEX., Oct. 17, 1907.

To the Editor:—Permit me to reply to Dr. W. E. Clark of Frederick, S. D., page 1295, THE JOURNAL A. M. A., October 12: Although I have never heard of the disease occurring so far north, the doctor describes dengue or breakbone fever (see Flint's "Practice" under eruptive fevers). While the disease was first supposed to be an infectious eruptive fever, the eruption is by no means pathognomonic, and in my opinion is wanting in a large percentage of cases. There is at present an epidemic of dengue in parts of Mexico and Texas.

B. K. CORLEY.

Sweeping Passenger Cars While Occupied.

LINN GROVE, IOWA, Oct. 19, 1907.

To the Editor:—Noticing in THE JOURNAL, Oct. 12, 1907, announcement regarding an order issued by the state commissioner of health of Pennsylvania relating to sleeping cars, I am reminded of a nuisance regularly committed in the day coaches on at least one of the great railway systems leading into Chicago. I allude to the sweeping of the car while occupied, with the result that the car is filled with dust, and invariably a number of passengers are set to coughing. Can not this wrong be righted?

C. I. PEASE.

Book Notices

DEUTSCHES BÄDERBUCH, bearbeitet, unter Mitwirkung des Kaiserlichen Gesundheitsamtes, von Himstedt, Hintz, Grünhut, Jacobj, Kauffmann, Keilhack, Kionka, F. Kraus, Kremser, Nicolas, Paul, Röchling, Scherrer, Schütze, Winckler, Rost, Sonntag, und Auerbach, unter Beihilfe von K. von Buchka, E. Dietrich, O. Lassar, E. von Leyden, E. A. Merck. Illustrated wih 13 plates. Cloth. Pp. civ, 536. Price 15 marks. Leipzig: J. J. Weber, 1907.

This is a truly monumental work and one from which every physician who is at all familiar with the German language can obtain much valuable information. It deals not only with the German baths but with the mineral waters, sea baths, and "air cures". It represents an effort to place before the medical profession an impartial account of the baths and medicinal springs of Germany. No recommendations of any kind are made; all available data concerning the analyses of the waters, their physical properties, etc., are given so that physicians can draw their own conclusions as to what patients would be benefited by a course of treatment. Hitherto, the chief source of such information has been the publications of those who are financially interested and, as was to be expected, these were often of a biased character. The work is analogous in some ways to that of the Council on Pharmacy and Chemistry of the American Medical Association.

A feature which makes the work of general interest (*i. e.*, independently of any special application to the German springs) is the series of introductory chapters dealing with the geology, chemistry, pharmacology, and the general therapeutics of baths and mineral waters; probably no better summaries of the present knowledge on these subjects can be found. In the chapters on pharmacology and therapeutics are discussed the effects of baths on heart rate, blood pressure and metabolism; the effects of carbon dioxid baths; the osmotic effects; salt action; the effects of certain elements (calcium, magnesium, iron, sulphur), of the alkalies, etc. Some space is devoted to the radioactivity of mineral springs; Kraus (of Berlin) states that he believes the emanations have a decided influence on certain forms of pain and on certain cells. It is interesting to note how little attention is devoted to lithium; our German colleagues have evidently freed themselves of the old "lithia water" superstitions much more completely than have we. Each of the nine groups into which the springs are divided is also preceded by a brief chapter dealing with the general principles underlying their clinical use.

Chemical analyses of the waters naturally occupy a large part of the volume. These analyses are given in terms of anions and kations, although the hypothetical forms of combination are also given; this manner of reporting analyses has been used by the U. S. Department of Agriculture in its bulletins on American mineral waters so that comparisons between the springs of the two countries are easy. With these chemical data are given many facts of much value to those contemplating a visit to one of these springs; such as the location of the spring, and how it is reached, data concerning the rainfall and temperature, the number of physicians, etc.—information often difficult to obtain and similar to that collected by Crook for the American springs.

This work will also prove a trustworthy source of information concerning some of the mineral and table waters which are imported into the United States in such large quantities. Spurious waters purporting to be of German origin are also to be found on the American market. Thus last summer there was sold in the city of Washington a water labeled "Sprudel Wiesbadner Wasser . . . Friedrichs Quelle." No such spring is mentioned in the Bäderbuch as occurring in Wiesbaden. As a matter of fact, as is shown in the Typhoid Fever Report of the Hygienic Laboratory, this "Wiesbaden" water was made from Potomac water. (The same "distributor" was also preparing a "Sparkling Rock Spring Lithia . . . recommended by physicians" and another "Spring Water" from the same source).

Every physician advising a patient to visit a German spring should consult this work. Considering the character of the work and the vast amount of information contained in it, the price (15 marks) is very moderate.

It should also stimulate interest in the American baths and mineral springs in which, as is well known, this country is extraordinarily rich, the United States Geological Survey has described over 2,800 localities in which mineral springs are found. Excellent analyses (by the U. S. Department of Agriculture and by the federal and state geological surveys, for example) of many of these are available and a few good books have been written on them, but the publication of these data in such a uniform and systematic manner as this Bäderbuch would do much to arouse the interest of the profession in them. The great economic importance of such springs (the Bäderbuch estimates this for the German springs at nearly $100,000,000 per year) would justify the government in doing more to make our own springs better known.

COMMON BACTERIAL INFECTIONS OF THE DIGESTIVE TRACT, and the Intoxication Arising from Them. By C. A. Herter, M.D., Professor of Pharmacology and Therapeutics in Columbia University. Cloth. Pp. 360. Price, $1.50 net. New York and London: The Macmillan Co., 1907.

This book embodies the views that the author expressed in the Harvey Society Lecture in November, 1906, which was very fully abstracted in THE JOURNAL, March 23, 1907. Herter's object is to bring into greater prominence some of the more important details that were omitted or but briefly touched on in the abstract mentioned. As is stated in the preface, "the book does not aim at a systematic discussion . . . of gastroenteric infection, either from a clinical or a bacteriologic standpoint." Much stress is laid on the laboratory methods as developed by the author, the object being that by utilizing them a clearer insight will be gained of the bacterial processes that bear a causal relation to disease. The final chapter of the book, dealing with the sociologic bearings of diseases of the digestive tract, while short, is of great interest. The author's style is such as to make the book eminently readable and interesting. Mechanically the book is all that could be wished, the clear type on good unglazed paper making reading especially easy on the eyes.

DISEASES OF THE STOMACH. By Dr. I. Boas, Specialist in Gastroenteric Diseases in Berlin. The Sole Authorized English-American Edition from the Latest German Edition, by Albert Bernheim, M.D., Instructor in Department of Diseases of the Stomach and Intestines in the Philadelphia Polyclinic Hospital and Post-graduate School. Illustrated. Cloth. Pp. 730. Price, $5.00. Philadelphia: F. A. Davis & Co., 1907.

This work is clearly and concisely written, and the translator has done his work well. English readers must be congratulated on having access at last to this authoritative work, which has been popular in Germany for some time. There are other works on this subject which are larger and more encyclopedic in scope, but none in which every statement is better digested or better represents the mature judgment of a painstaking observer and student. So well balanced is the

book that it is difficult to find any one part which is either especially praiseworthy or open to criticism. At first glance it would seem that too much space is devoted to general considerations of diagnosis and treatment; for less than half the pages are devoted to special diagnosis and therapeutics or the description of individual diseases of the stomach. But when the book is read consecutively from cover to cover this seeming lack of balance is unnoticed.

On page 82, Boas' algesimeter is figured and described. Its utility in discovering the most sensitive spots in the abdomen and along intercostal nerves is commented on.

Though devoting much space to physical and chemical methods of studying diseases of the stomach, the author does not assign to the results of such study undue weight. In this he especially shows his wide clinical experience and good judgment. For instance, when he discusses the diagnostic significance of hydrochloric acid tests he prefaces by this "conclusion that an anomaly of hydrochloric acid secretion is in itself by no means a certain index of the existence of a stomach disease." Students and young practitioners are inclined to give undue weight to laboratory findings. They are most frequently one of the symptoms or groups of symptoms which characterize a disease, but are not pathognomonic.

Besides chapters devoted to anatomy, physiology and methods of diagnosis, others are devoted to (1) diet, (2) balneotherapy, (3) physical curative methods, (4) lavage, (5) employment of acids and alkalies, (6) artificial ferments, and (7) bitters and stomachics.

PRACTICAL FEVER NURSING. By Edward C. Register, M.D., Professor of the Practice of Medicine in the North Carolina Medical College, etc. Illustrated. Cloth. Pp. 352. Price, $2.50. Philadelphia and London: W. B. Saunders Co., 1907.

As a reason for the preparation of this work the author says in his preface: "A nurse, before she can intelligently care for a fever patient, must have some knowledge of the disease and its medical treatment." An examination of the book is calculated to raise the question in the reader's mind whether or not an overdose of information has not been given. The work reads like a treatise on the practice of medicine and contains fully as much information on the subjects of which it treats as is given in a treatise on medicine of moderate size. More space is given to the symptomatology of typhoid fever than is given to the same subject in standard works on medicine and while one can not question the appropriateness of most of the information given, it is still a question whether or not it is necessary for nurses. There is less reason for giving space to an account of the diagnosis of typhoid fever or to the statement of the medicinal treatment of the various fevers. Passing from this view of the general character of the book, it is just to say that most of the statements are correct and will not be likely to mislead the nurse unless she gain the idea that by the aid of the book she can usurp the province of the physician. There are minor blemishes which it may be hypercritical to notice. Such are the use of the word convalescence to mean a period beginning with the decline of the fever instead of beginning with the cessation of the disease. The directions given for raising a tympanitic patient and letting him strain to relieve the accumulated gas might be productive of harm in the hands of a nurse lacking in judgment, but the author gives no directions for discriminating one form of tympanitis from another. Some redundancy may also be noticed; the same method of disinfecting the hands may be found on page 88 and again on page 269. The language is sometimes ambiguous and grammatical errors and defects of style are to be found in some places, but it is not necessary to take time to point these out. On the whole, the book is an excellent one.

MANUAL OF CLINICAL DIAGNOSIS by Means of Microscopic and Chemical Methods for Students, Hospital Physicians and Practitioners, by Charles E. Simon, B.A., M.D., Professor of Clinical Pathology at the Baltimore Medical College. Sixth Edition, Thoroughly Revised. Illustrated. Cloth. Pp. 682. Price, $4.00. Philadelphia and New York: Lea Bros. & Co., 1907.

The problem of introducing the results of recent advances in clinical diagnosis without increasing the bulk of the work has been met by careful condensation and elimination of older methods which have been superseded or shown to be untrustworthy. Enlargement is shown chiefly in the chapters on the blood and by a new chapter on opsonins. The work of revision has been done in such a manner that the book still stands at the head of works on this subject. We find one method which might well have been eliminated, that for determining the absorptive power of the stomach by potassium iodid. It must be admitted that there is so little absorption of salts from the stomach as to make this method of very doubtful value, probably even worthless. We miss any mention of the test diet of Schmidt, although this would seem to be quite as important as the oatmeal test meal of Boas, which we believe is no longer used by its author. In some places a statement of the clinical significance of certain tests would be of value. Some directions for a routine method of examination of the feces would facilitate the use of the book by general practitioners. The work is well illustrated, some of the plates showing the colors given by certain reactions.

AMERICAN PRACTICE OF SURGERY. A Complete System of the Science and Art of Surgery. By Representative Surgeons of the United States and Canada. Editors: Joseph D. Bryant, M.D., LL.D., and Albert H. Buck, M.D., New York City. Complete in Eight Volumes. Illustrated. Volume III. Cloth. Pp. 775. Price, $7.00. New York: William Wood & Co., 1907.

In the first part, under poisoned wounds, are described erysipelas, tetanus, glanders, actinomycosis, anthrax, etc., which have already been covered in vols. 1 and 2, thus making an unnecessary repetition. The chapter on rabies is full of interest and shows conclusively the value of the Pasteur preventive treatment. A colored plate well illustrates the appearance of Negri bodies in the cells of the central nervous system, the presence of which are now supposed to be pathognomonic of rabies.

The subject of fractures, on which little new is to be expected, is covered in a satisfactory manner, although Barker's method, which is illustrated, of wiring a fractured patella by passing a wire subcutaneously around the fragments longitudinally and through the joint, should be condemned as poor surgery. All of the chapters on diseases of bone and of the joints are exceptionally good for text-book articles, and particularly valuable is the chapter on "Non-inflammatory Affections of Bone." These articles are eminently practical without entering too deeply into technical or controversial points and contain such information as the average man, in consulting text-books, would desire to find.

This volume is perhaps the best of the three of this system which have so far appeared.

POSTOPERATIVE TREATMENT. An Epitome of the General Management of Postoperative Care and Treatment of Surgical Cases, as Practiced by Prominent American and European Surgeons. By Nathan Clark Morse, A.B., M.D., Surgeon, Emergency Hospital, Eldora, Iowa. Second Edition, Revised and Enlarged. Illustrated. Cloth. Pp. 499. Price, $4.00. Philadelphia: P. Blakiston's Son & Co., 1907.

There is a distinct field for this book and it was to be expected that a second edition would soon be required. Enlarged and brought up to date, it will serve to aid both surgeon and practitioner in the important matter of postoperative care. The author's selection of what are the most practical and valuable methods to recommend seems to us excellent.

FOOD AND THE PRINCIPLES OF DIETETICS. By R. Hutchison, M.D., F.R.C.P. Revised Edition, with Plates and Diagrams. Cloth. Pp. 582. Price, $3.00 net. New York: William Wood & Co.

Of the works on dietetics this is a very readable representative. The conclusions are clearly put and do not have to be extricated from a maze of scientific verbiage. The illustrations, appropriately, are very graphic and aid greatly in the presentation of the facts brought out. The new revised edition, although it does not go into the more abstruse problems, has been brought up to date in so far as the scope of the work demands. The physician who is without a book on this subject is doing neither himself nor his patients justice.

IN MEMORIAM. Albert Ethelbert Ebert, Dec. 23, 1840, to Nov. 20, 1906. Nestor of American Pharmacy. Biographical Sketch, etc., by American Pharmaceutical Association. Illustrated. Paper. Pp. 73.

It is fitting that some memorial should be made on the death of one who is called the "Nestor of American Pharmacy" and whose name "was associated with every movement for the advancement of pharmacy as a science and its progress as a profession." This booklet, issued by the American Pharmaceutical Association, contains a biographic sketch of Albert Ethelbert

Ebert and tributes to his life and character by prominent pharmacists, physicians, publishing houses and pharmaceutical organizations. An excellent portrait of Mr. Ebert forms the frontispiece, and scattered throughout the brochure are different illustrations of friends and gatherings in which Mr. Ebert figured.

ATLAS AND EPITOME OF DISEASES OF CHILDREN. By Dr. R. Hecker and Dr. J. Trumpp of the University of Munich. Authorized Translation from the German. Edited by Isaac A. Abt, M.D., Assistant Professor of Diseases of Children in Rush Medical College. With 48 Colored Plates and 147 Illustrations. Cloth. Pp. 453. Price, $5.00. Philadelphia and London: W. B. Saunders Co., 1907.

This volume is notable for the wealth and lifelikeness of its illustrations. The text forms a compendious manual of pediatrics; the pictures, however, can be studied without reference to the text, by the use of the detailed notes that accompany the pictures. Gross and microscopic pathologic specimens, as well as the appearance of disease in life, are excellently portrayed.

Miscellany

Alcohol Not Food for the Heart.—In a paper read before the Anti-Alcohol Congress at Stockholm by E. Louis Backman of Upsala, experiments on the isolated heart of the rabbit are described which bear on the question of the nutritive value of alcohol. It has been shown by Locke and others that grape and fruit sugar cause a gradual augmentation of the contractions of the isolated heart, and that these substances may be considered as food for the heart muscle. In order to test the value of alcohol solutions containing amounts varying from 0.0025 per cent. to 0.5 per cent. were made to pass through the vessels of the isolated heart after its power for work had been distinctly reduced; the alcoholic solution was replaced later by a 0.5 solution of grape sugar, which in most cases produced a distinct restitution of the heart's work, showing that the heart had not been overworked, but still possessed the power of making use of a nutritive substance which was furnished it. In no case was a nutritive or stimulating power of alcohol proved: it was always shown that if the heart was supplied with alcohol in a quantity producing an effect of any kind this effect consisted exclusively either in a temporary irregularity of pulsation or in a brief diminution of the strength of the contractions or even in a lasting arrhythmia and a considerable reduction in the volume and number of the pulsations. These experiments, therefore, tend to show that ethyl alcohol does not possess the power to maintain the action of the isolated heart of the rabbit, that, in other words, it can not be used by the heart as food.

Position in Appendicitis.—Dreesmann places the patient on the right side, with the body turned so far over that the left knee lies a little in front of the right knee. This position has a number of advantages, especially promoting localization and encapsulation of the suppurative process, while there is less danger of the patient's moving about. The same position should be maintained if the patient is being transported. He remarks in his communication on the subject in the *Med. Klinik* for September 8, page 1073, that the favorable outcome of peritonitis originating in the small pelvis is probably due in large part to the mechanical conditions favoring the encapsulation of the pus in the small pelvis.

Sand-bur in the Larynx.—A correspondent writes to THE JOURNAL that in two cases he has had no difficulty in removing a sand-bur from the larynx by the following method: The tongue is drawn well forward and then either by touch or sight, using mirror, a cotton-wrapped uterine probe is introduced into the larynx, very gently but quickly. The probe should be bent in order to enter the larynx readily. The sand-bur adheres much more strongly to the cotton than to the tissue of the larynx, and comes out with the cotton on the probe. In both cases referred to, the bur had been drawn into the larynx during an inspiration, while removing the bur from the clothing with the teeth.

Suit for Damages from Application of Ice in Appendicitis.—A young girl was treated for appendicitis by Dr. Common of Paris, one of whose measures was local application of ice. After recovery from appendicitis an eschar resulted, causing considerable pain, and a suit for $10,000 damages was instituted. The judge, in summing up the case, reviewed the testimony of the medical experts to the effect that in treating inflammation with ice its application should be continued until the symptoms have subsided, regardless of the resulting inconveniences, and that the interposition of flannel or the use of the thermometer is not indispensable, while the formation of an eschar can not be foreseen. He therefore dismissed the suit with costs for the plaintiff.

Nature of Insanity.—White, in the *Washington Medical Annals*, states that the symptoms of mental disorder tend to arrange themselves into groups, but the constancy of these groups is a very variable factor and that we are getting away from the idea of distinct definite psychoses and are using such terms as the dementia paralytica group, the manic depressive group, the hysteria group. These groups are not clean-cut entities, but are only groups of symptoms which either seem to occur more frequently in certain combinations or else have been more definitely and clearly seen because of the nature of those combinations.

Playgrounds in the Prevention of Tuberculosis.—Favill, in the *Chicago Medical Recorder*, states that to the child the playground must be made attractive, wholesome and so unrestricted as to give every child a proprietary interest. On the other hand, by every conceivable means the elders must be made to realize the privilege and beneficence of the playground, and brought into actual cooperation in magnifying the interests of children as a principle of their upbringing. To bring the unenlightened parent, or even the so-called unenlightened parent, to value the playground as he values the school room is a colossal undertaking, but unless this can be accomplished the work will fall far short of its legitimate possibilities.

Marriages

HARRY D. ORR, M.D., to Miss Helen Glanville Badenoch, both of Chicago, October 12.

JOHN STAIGE DAVIS, M.D., to Miss Kathleen Bowdoin, both of Baltimore, October 26.

JOHN C. MUELLER, M.D., to Miss Anna Vandersheid, both of La Motte, Iowa, October 9.

EDWARD LOUIS ROHLF, M.D., to Miss Luella Johnson, both of Waterloo, Iowa, October 9.

DANIEL A. WATKINS, M.D., to Miss Flora S. Gassman, both of Hagerstown, Md., October 23.

SIMON LEVIN, M.D., Lake Linden, Mich., to Miss Laura Schrader of Chicago, October 21.

HARVEY WORTH SIGMUND, M.D., to Miss Helen O'Neal, both of Crawfordsville, Ind., October 22.

EDWARD C. MITCHELL, M.D., Carbondale, Ill., to Miss Catherine Devine of Chicago, October 12.

M. LOUISE GRAHAM, M.D., Dorchester, Boston, and Edward F. Brown of Marlboro, Mass., recently.

JOSEPH CLARK WINANS, M.D., Belleville, N. J., to Miss Daisy Arson of Montclair, N. J., October 5.

CHARLES ALBERT LEAMAN, M.D., to Miss Cornelia Gray Wilson, both of Williamsport, Pa., October 11.

WILLIAM CUMMINGS FISHER, M.D., to Miss Adelaide Louise Jacques, at Bronxville, N. Y., October 9.

WRIGHT C. WILLIAMS, M.D., Peoria, Ill., to Miss Esculine Rowland of Columbus, Ohio, October 9.

GEORGE E. BORDEN, M.D., Adamsville, R. I., to, Miss Ina B. Stuart of Fall River, Mass., September 25.

HAROLD JAMES MORGAN, M.D., Ogdensburg, N. Y., to Miss Ella Luce Hardee of Toledo, Ohio, October 10.

JOHN STERLING GATTY, M.D., New Windsor, Md., to Miss Anna May Rept, at New Windsor, October 2.

WILLIAM TALLIAFERRO BROWN, M.D., Silver Spring, Md., to Miss Helen Mary Conley, at Rockville, Md., October 9.

RANSOM SPAFFORD HOOKER, M.D., to Miss Mildred Phelps Stokes, both of New York City, at Noroton, Conn., October 24.

CEPHAS COLE HILL, M.D., Darlington, S. C., to Miss Mary Elizabeth Cargile of Morganfield, Ky., at Uniontown, Ky., October 23.

ROBERT SYTHOFF STARR, M.D., Hartford, Conn., to Miss Sarah De Forest Edwards of New York City, at Lanesboro, Mass., October 9.

Deaths

James M. French, M.D. Medical College of Ohio, Medical Department of the University of Cincinnati, 1880; a member of the American Medical Association; formerly lecturer on the theory and practice of medicine in the Medical College of Ohio; attending physician to St. Mary's Hospital and consulting physician to St. Francis' Hospital for Incurables, Cincinnati; at one time editor of the *Ohio Medical Journal* and police surgeon of Cincinnati; for six years a resident of San Diego, Cal., and once president of the San Diego County Medical Society, died at his home in San Diego from chronic nephritis, October 8, aged 49.

John Godfrey, M.D., surgeon U. S. P. H. and M.-H. Service; a Confederate veteran; after the Civil War a clerk in a government office at Washington, and a graduate of a medical college in that city in 1867 or 1868; appointed an assistant surgeon in the Marine-Hospital Service June 29, 1877; made a passed-assistant surgeon July 1, 1880, and promoted to surgeon Feb. 6, 1885; an officer of remarkable administrative ability; a poet and writer of note; highly esteemed as a practitioner and a man, who was retired about ten years ago on account of prostatic hypertrophy, died in Detroit, Mich., October 16, aged about 70.

Albert **Gaillard Hart, M.D.** Jefferson Medical College, Philadelphia, 1852; a member of the Ohio State Medical Association, Cuyahoga County Medical Society and Cleveland Academy of Medicine; surgeon of the Forty-first Ohio Volunteer Infantry during the Civil War; for several terms a member of the Cleveland School Board and a member of the Cleveland Health Board from 1882 to 1884; one of the oldest practitioners of Cleveland, was run down by a street car October 12, fracturing his skull, and causing his death two hours later, aged 86.

John J. Steinriede, M.D. Ohio Medical College, Medical Department of the University of Cincinnati, 1860; Miami Medical College, Cincinnati, 1867; of Benton, Miss.; surgeon in the Army during the Civil War; professor of toxicology and chemistry at Drake University, Des Moines, and later a member of the Ensworth Medical College, St. Joseph, Mo., died in a sanitarium in Memphis, Tenn., September 22, from pneumonia, three days after an operation for cholelithiasis, aged 75.

Jackson Piper, M.D. University of Maryland School of Medicine, Baltimore, 1853; for many years attending physician to the Baltimore County Alms-House; president of the Maryland State Board of Health from 1884 to 1892; one of the founders and first president of the Baltimore County Medical Association, 1897-1898; first sanitary officer of the Ninth District of Baltimore County, died at his home in Towson, Md., October 11, after an illness of several years, aged 78.

William H. Noble, M.D. University of Maryland School of Medicine, Baltimore, 1883; of Cumberland, Md.; surgeon in charge of the Western Maryland Hospital; a member of the Medical and Chirurgical Faculty of Maryland, and of the Medical Society of the State of Pennsylvania and Philadelphia County Medical Society, died at Narberth, Philadelphia, from uremia, after a long illness, October 15, aged 46.

Christopher Patterson, M.D. Geneva (N. Y.) Medical College, 1848; a member of the medical societies of the State of New York and County of Steuben; one of the oldest and most esteemed practitioners of Avoca, N. Y., formerly president and the oldest living member of the Steuben County Medical Society, died at his home October 10, after an illness of several months, aged 89.

Emil T. Sabal, M.D. Long Island College Hospital, Brooklyn, N. Y., 1859; Medical College of Virginia, Richmond, 1861; a member of the American Medical Association and one of the most prominent practitioners of Florida; a resident of Jacksonville since 1859; died at his home in that city, October 12, from cerebral hemorrhage, after an illness of two days, aged 73.

Horace A. Brooks, M.D. University of Maryland School of Medicine, Baltimore, 1861; captain in the Confederate service during the Civil War, and a member of the staff of the *Baltimore Sun* for many years, died at his home in Allendale, near Kinsale, Va., October 12, from rheumatic gout, after an illness of several years, aged 66.

Samuel Cowdell Ellis, M.D. Jefferson Medical College, Philadelphia, 1882; a member of the American Medical Association and one of the most prominent practitioners of Chattanooga, Tenn., surgeon in the Canadian service for five years, died from cerebral hemorrhage while making a professional call, October 10, aged 49.

William F. Wilkins, M.D. University Medical College, Kansas City, Mo., 1888; one of the founders of, and a professor in, the Eclectic Medical College of Kansas City, Kan.; a veteran of the Civil War; died at his home in Kansas City, Mo., October 11, from cerebral hemorrhage, after an illness of three days, aged 62.

Henry Rupert Brissette, M.D. McGill University Medical Faculty, Montreal, 1871; a member of the Massachusetts and Middlesex County medical societies; since 1880 a practitioner of Lowell, Mass., died at his home in that city, October 18, after an illness of several years, aged 64.

Robert Lebby, M.D. Medical College of the State of South Carolina, Charleston, 1853; a veteran of the Civil War; for twenty-eight years quarantine officer of the port of Charleston and a life long resident of James Island, S. C., died at his home October 11, after a short illness, aged 81.

Charles Bret Pool, M.D. College of Physicians and Surgeons, Baltimore, 1893; a member of the Massachusetts and Middlesex County medical societies; of Lowell, Mass.; died from hemorrhage of the stomach, at a hotel in Lowell, while returning from a professional call, aged 38.

Fred William Lowe, M.D. University of California, Medical Department, San Francisco, 1892; of Knight's Ferry, Cal.; formerly a member of the U. S. P. H. and M.-H. Service; died from pleurisy at Holbrook, Ariz., October 10, after a long illnes, aged 37.

Benjamin F. Brown, M.D. Kentucky School of Medicine, Louisville, 1893; a member of the American Medical Association; of Crockett, Texas, died suddenly on the public square in that place, October 9, presumably from heart disease.

Hugh A. McSwain, M.D. New York University, New York City, 1851; of Wade, N. C., for many years a practitioner of Fayetteville, died at the home of his daughter in Rocky Mount, N. C., October 9, aged 76.

William T. Nolen, M.D. University of Tennessee, Medical Department, Nashville, 1895; of Ada, I. T., died at his home in that place, October 7, it is said, from the effects of an overdose of a narcotic.

Samuel Greenspan, M.D. College of Physicians and Surgeons in the City of New York, 1906; of New York City, died October 9, from typhoid perforation, after an illness of four weeks, aged 23.

John F. McCann, M.D. United States Medical College, New York, 1882; of New York City, died in Harlem Hospital, October 10, from injuries received in a fall from a street car.

Lilla M. Tenny, M.D. Hahnemann Medical College of the Pacific, San Francisco, 1902; died suddenly from heart disease at her home in Piedmont, Oakland, Cal., October 5, aged 40.

Lillian Alice Willis, M.D. Eclectic Medical College of the City of New York, 1899; died at her home in Jersey City, October 7, after an illness of eight weeks, aged 43.

Alonzo Wiltse, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1880; a practitioner for about 65 years, died at his home in Delavan, N. Y., October 14, aged 92.

Collister P. Huston, M.D. Hahnemann Medical College of the Pacific, San Francisco, 1897; died at his home in Challis, Idaho, October 10, from appendicitis, aged 35.

Frank W. Krum, M.D. College of Physicians and Surgeons, Baltimore, 1893; was found dead in a bathroom in his offices in Reading, Pa., October 14, aged 35.

Ernest O. Crewe (Examination, Illinois) 1896; formerly of Quincy, Ill., died in Chicago, October 14, after a long illness, from kidney disease, aged 42.

Samuel David Mercer, M.D. Berkshire Medical College, Pittsfield, Mass., 1866; of Omaha, Neb., died recently at his home and was buried October 13.

Frederick E. Manuel Medina, M.D. University of Maryland School of Medicine, Baltimore, 1901; died at his home in Lowell, Mass., October 9, aged 33.

Henry H. Lewis, M.D. Eclectic Medical Institute, Cincinnati, 1854; died at his home in Salt Lick, Ky., October 8, from kidney disease, aged 78.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

IODIN TREATMENT OF RATTLESNAKE BITES.

LOGAN, IOWA, Oct. 8, 1907.

To the Editor:—Under the head of "Queries and Minor Notes," in THE JOURNAL, Sept. 28, 1907, page 1130, I notice an article on rattlesnake bites. Permit me to give you the results of an experiment made at Rush Medical College, Chicago, in the winter of 1866, by Prof. Edwin Powell, who was at that time professor of surgical anatomy and military surgery. Dr. Powell was a nephew of Daniel Brainard, and when Dr. Brainard after having practically completed his course of lectures for the term was about to go on a trip to Europe, he placed some matters in the hands of Dr. Powell to finish up for him. Among other things was a series of experiments with the virus of the rattlesnake. Dr. Brainard had secured some gourds filled with the poison used by some of the tribes of Indians of the Northwest for the preparation of poisoned arrows. It was stated that the poison was nothing more or less than the rattlesnake poison incorporated with the juice of a certain number of native plants; and that a definite number was deemed of importance, although it was found that these plants were all nonpoisonous. Dr. Powell gave a history of the manner of securing the poison (woorara) by Dr. Brainard, and then began his experiments with it. He was supplied with two hypodermic syringes with which to introduce the poison, and a number of pigeons and barnyard fowls. He first introduced the poison under the wing of a pigeon, which died in five seconds by the watch. Next he selected a hen; that died in twenty seconds. He then mixed the woorara with an equal quantity of compound tincture of iodin. The fowls paid no attention to treatment further than to flutter their wings and make their toilet as self-respecting fowls should after having had their feathers rumpled by rough handling. Next he loaded two syringes, one with the poison and the other with the iodin. He inserted the points of the needles under a wing close together, and he and an assistant each made the injection simultaneously. Fowls under this treatment were very ill for a time, but all recovered. I do not remember how many fowls were used, but the result was the same in each case. The longest time required to kill a pigeon was nine seconds, and in the case of the barnyard fowl, twenty seconds.

I have had occasion to use iodin in snakebites in practice and have had no trouble beyond a slight swelling if attended to at once, and a rapid recovery in all other cases. I do not know why a report of these experiments has never been made, unless that Dr. Powell left it for Dr. Brainard to attend to. Dr. Brainard returned from his foreign trip in the early autumn of the same year, and died Oct. 10, 1866, of cholera, after an illness of less than twenty-four hours. Why some one of that class in Rush Medical College has never written the matter up I do not know. I have no use for alcohol in snake bites. I believe that the patient gets well in spite of the enormous amount given and not because of it. I have known of such large doses of whisky having been taken that I can not but believe that the power of absorption is lost on account of the action of the virus, or the patient would succumb to the action of the remedy. In using the iodin in these cases it should be injected into the cellular tissue around the bite, and immediate results will be obtained if this is quickly done.

J. KNOWLES, M.D.

CAMMIDGE TEST FOR PANCREATIC DISEASE.

WICHITA FALLS, TEXAS, Sept. 25, 1907.

To the Editor:—Please print in full the Cammidge reaction or test to determine the presence or absence of pancreatic disease.

J. W. DUVAL.

ANSWER.—As given in THE JOURNAL, June 16, 1906, p. 1890, the Cammidge reaction is performed as follows: A specimen of the twenty-four hours' urine, or of the mixed morning and evening secretions, is filtered several times through the same filter paper and examined for albumin, sugar, bile, urobilin and indican. A quantitative estimation of the chlorids, phosphates and urea is also made, and the centrifugalized deposit from the urine examined microscopically for calcium oxalate crystals. If the urine is found to be free from sugar and albumin, and of an acid reaction, 1 c.c. of strong hydrochloric acid (specific gravity 1.16) is mixed with 20 c.c. of the clear filtrate, and the mixture gently boiled on the sandbath in a small flask, having a long-stemmed funnel in the neck to act as a condenser. After ten minutes' boiling the flask is well cooled in a stream of water, and the contents made up to 20 c.c. with cold distilled water. The excess of acid present is neutralized by slowly adding 4 grams of lead carbonate. After standing for a few minutes the flask is again cooled in running water and the contents filtered through a well-moistened, close-grained filter paper until a perfectly clear filtrate is secured. The filtrate is then well shaken with 4 grams of powdered tribasic lead acetate and the resulting precipitate removed by filtration, an absolutely clear filtrate being obtained by repeating the filtration several times if necessary. The large amount of lead in solution is removed either by treatment with a stream of sulphuretted hydrogen or by precipitating the lead as a sulphate. For this purpose the clear filtrate is well shaken with 2 grams of finely-powdered sodium sulphate, the mixture heated to the boiling point, then cooled to as low a temperature as possible in a stream of cold water, and the white precipitate removed by careful filtration; 10 c.c. of the perfectly clear transparent filtrate is made up to 18 c.c. with distilled water and added to 0.8 gram of phenylhydrazin hydrochlorate, 2 grams of powdered sodium acetate and 1 c.c. of 50 per cent. acetic acid contained in a small flask fitted with a funnel condenser. The mixture is boiled on a sandbath for ten minutes, and then filtered hot through a filter paper moistened with hot water into a test-tube provided with a 15 c.c. mark. Should the filtrate fail to reach the mark, it is made up to 15 c.c. with hot distilled water. In well-marked cases of pancreatic inflammation a light yellow, flocculent precipitate should form in a few hours, but it may be necessary to leave the preparation to stand over night before a deposit occurs. Under the microscope the precipitate is seen to consist of long, light yellow, flexible, hair-like crystals, arranged in sheaves which, when irrigated with 33 per cent. sulphuric acid, melt away and disappear in from ten to fifteen seconds after the acid first touches them. The urine employed for the experiment should be fresh, and not have undergone fermentative changes. If alkaline in reaction it should be made acid with hydrochloric acid before the test is commenced; any glucose that may be present should be removed by fermentation after the urine has been boiled with the acid, and the excess neutralized.

APOMORPHIN AS AN EMERGENCY EMETIC IN OPIUM POISONING.

GRACEVILLE, MINN., Oct. 8, 1907.

To the Editor:—In the Therapeutic department (THE JOURNAL, Sept. 7, 1907, p. 864), I was surprised to see the use of apomorphin recommended in opium poisoning. The danger of this measure has been so frequently mentioned of late, that I supposed it was recognized as unjustifiable. If the matter is still controversial, let me mention an instance of an adult who, after several hours of artificial respiration, and classic treatment for an overdose of morphin, appeared practically out of danger, and succumbed in a few minutes after the administration of one-tenth grain of apomorphin. I have also seen alarming symptoms of opium narcosis in a two-year-old child following too large a dose (one-thirtieth grain) of apomorphin hypodermically. Even moderate doses of this drug produce as a rule notable sedation, and to some extent it must be synergetic with the opiates.

B. M. RANDALL, M.D.

ANSWER: The doctor will permit us to quote from the article in question as follows: "If a tube is not immediately at hand for washing out the stomach (the best method), one-tenth of a grain of apomorphin hydrochlorid should be administered hypodermatically, unless mustard water or two grams (thirty grains) of zinc sulphate stirred up in water and administered by the mouth has immediately caused vomiting." From this quotation it will be seen that apomorphin is recommended only as a resort when the other means mentioned are either not at hand or have failed. There is no question that apomorphin is a depressant. On the other hand, it is much better to overcome slight depression from it than to allow morphin or opium to remain long enough in the stomach to produce dangerous absorption. Also it should be remembered that a patient suffering from serious opium poisoning should not be walked about or subjected to severe exercise, as sudden heart failure has often occurred from such poisoning alone. Also, in any condition where it is deemed necessary to use apomorphin as an emetic, the patient should subsequently, for a time, remain at rest. Since apomorphin is only recommended as an emergency *emetic* in this condition, one is led to ask why apomorphin was administered *after* the patient was recovering from opium poisoning?

"GRAINS OF SEGREGATION."

GREELEY, COLO., Sept. 19, 1907.

To the Editor:—Will you kindly tell me what place "grains of segregation" hold in the therapy of kidney lesions as written of by M. J. Renaut of Lyons, (a), as prepared by the macerating of fresh kidneys, (b) as prepared by Reed and Carnrick?

B. K. ELLIS, M.D.

ANSWER.—Renaut's paper was published in the *Bulletin de l'Académie de Médecine*, lxvii, No. 41, and was abstracted in THE JOURNAL, Jan. 30, 1904, p. 341. Another paper by Renaut and Choupin (*Revue de Médecine*, 1905) was reviewed in *Progressive Medicine*, December, 1905. A paper by F. Arrulani was abstracted in THE JOURNAL for Jan. 27, 1906, p. 314. (*Riforma Medica*, xxi, No. 31.) The method of Renaut is based on claims as to the physiologic properties of certain constituents of the kidney epithelium which have, so far as we know, received no confirmation at the hands of other physiologists. The clinical experience with the method appears to be limited to that given by Renaut, Dubois, Arrulani and a few others, and so far as published, it appears to be favorable to the method. It is to be remembered, however, that many factors enter into the treatment of kidney lesions and much experience is needed before the proper importance can be attributed

to any one measure and a new remedy needs to show its value in a large number of cases before it should be generally adopted. The method of Renaut is still in the experimental stage, because the scientific grounds on which it is founded are of a somewhat uncertain nature. With regard to the proprietary preparation referred to, from the report of the Council on Pharmacy and Chemistry in THE JOURNAL A. M. A., October 5, p. 1198, it appears that this preparation is destitute of scientific support and, so far as can be learned, unworthy of confidence.

OPHTHALMO-TUBERCULIN REACTION.

DOUGLAS, ARIZ, Oct. 8, 1907.

To the Editor:—In recent issues of THE JOURNAL I have noticed references to an ophthalmo-tuberculin reaction in which 1 per cent. solution is used. Kindly state what sort of tuberculin is used. F. T. WRIGHT, M.D.

ANSWER.—The preparation used by Calmette was a 1 per cent. solution of the precipitate obtained from tuberculin by the use of alcohol. He uses the old tuberculin of Koch as the starting point, but insists that it shall be precipitated with alcohol, sterilized by heating to a temperature not above 105 C. (221 F.) by moist heat and dissolved in boiled water. The technic is given in detail in the *Presse médicale*, June 19 and July 13, 1907.

The Public Service

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending Oct. 19, 1907:

Macy, F. S., asst.-surgeon, ordered to duty on *Buford*, sailing November 5, for Manila, where he will report for duty in the Philippines Division.

Rich, E. W., asst.-surgeon, relieved from duty at Rifle Range, Annapolis, Md., and at the Jamestown Exposition, and ordered to Fort Ontario, N. Y., for duty.

Kennedy, J. M., surgeon, having completed duties for which he was ordered to Washington, D. C., ordered to return to his proper station.

Yost, J. D., asst.-surgeon, granted an extension of fourteen days to his leave of absence.

Howell, Park; Craig, C. F.; Humphreys, H. G.; Wickline, W. A., and Baily, H. H., asst.-surgeons, arrived on the *Logan*, Oct. 15, at San Francisco, for duty in the United States.

Banister, J. M., deputy surgeon general, left Omaha, on leave of absence for fifteen days.

Heysinger, J. D., asst.-surgeon, ordered from Key West Barracks, Fla., for temporary duty at Fort DeSoto, Fla.

Adair, G. F., contract surgeon, ordered from Fort Wood, N. Y., to temporary duty at the Academy Rifle Range, Annapolis, Md.

Harmon, D. W., contract surgeon, granted leave of absence for twenty days.

Griffis, F. C., contract surgeon, granted leave of absence for four months, with permission to visit the United States.

Lincoln, H. F., contract surgeon, relieved from duty at Fort Leavenworth, Kans., and ordered to Fort Sam Houston, Texas, for duty.

Navy Changes.

Changes in the Medical Corps, U. S. Navy for the week ended Oct. 19, 1907:

Dollard, H. L., asst.-surgeon detached from the Naval Hospital, Newport, R. I., Oct. 15, and ordered to the *Rhode Island*.

Hull, H. F., asst.-surgeon, ordered to the Naval Hospital, Newport, R. I., October 15.

Jenness, B. F., P. A. surgeon, detached from the *Constellation* and ordered to the *Glacier*.

Ledbetter, R. E., P. A. surgeon, detached from the *Glacier* and ordered home to wait orders.

Wilson, H. D., surgeon, detached from the *Dixie*, when placed out of commission, and ordered home to wait orders.

Public Health and Marine-Hospital Service.

List of changes of station and duties of commissioned and noncommissioned officers of the Public Health and Marine-Hospital Service for the seven days ended Oct. 16, 1907:

Stoner, G. W., surgeon, directed to report at Washington, D. C., Oct. 22, 1907, for special temporary duty, on completion of which to rejoin his station at Ellis Island, New York.

Carrington, P. M., surgeon, granted leave of absence for 3 days from Oct. 14, 1907, under Paragraph 189, Service Regulations.

Clark T., P. A. surgeon, directed to proceed to Allentown, Pa., for special temporary duty; on completion of which to rejoin his station at Philadelphia.

Clark, T., P. A. surgeon, directed to report at Washington, D. C., Oct. 22, 1907, for special temporary duty; on completion of which to rejoin his station at Philadelphia.

Schereschewsky, J. W., P. A. surgeon, directed to report at Washington, D. C., Oct. 22, 1907, for special temporary duty; on completion of which to rejoin his station at Baltimore.

Berry, T. D., P. A. surgeon, granted leave of absence for 1 month and 10 days from Nov. 1, 1907.

McLaughlin, A. J., P. A. surgeon, directed to proceed to Paris, France; London, England, and Berlin, Germany, for special temporary duty, on completion of which to rejoin his station at Naples, Italy, Oct. 11, 1907.

Ebert, H. G., asst.-surgeon, relieved from the U. S. Revenue Cutter *Perry*, and from duty at Seattle, Washington, and directed to report to P. A. Surgeon Hobdy, San Francisco, Cal., for special temporary duty.

Frost, W. H., asst.-surgeon, granted leave of absence for 15 days from Oct. 13, 1907.

Bean, L. C., acting asst.-surgeon, granted leave of absence for 28 days from Oct. 1, 1907.

Duffy, F., acting asst.-surgeon, granted leave of absence for 10 days from Sept. 6, 1907.

Frissell, C. M., acting asst.-surgeon, granted leave of absence for 15 days from Oct. 15, 1907.

Kennard, K. S., acting asst.-surgeon, leave of absence granted for 28 days from Sept. 10, 1907, amended to read 26 days only.

Onuf, B., acting asst.-surgeon, granted leave of absence for 9 days from Sept. 26, 1907, on account of sickness.

Safford, M. V., acting asst.-surgeon, directed to report at Washington, D. C., Oct. 22, 1907, for special temporary duty, on completion of which to rejoin his station at Boston.

Stanton, J. G., acting asst.-surgeon, granted leave of absence for 15 days from Oct. 12, 1907.

Gahn, H., pharmacist, granted leave of absence for 12 days from Oct. 14, 1907.

Hall, L. P., pharmacist, excused from duty, without pay, for 10 days from Oct. 14, 1907.

Spangler, L. C., pharmacist, granted leave of absence for 23 days from Nov. 7, 1907.

PROMOTION.

Bell, J. M., pharmacist, promoted to pharmacist of the second class, effective Oct. 31, 1907.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the week ended Oct. 11, 1907:

SMALLPOX—UNITED STATES.

Colorado: Long Beach, Sept. 1-30, 5 cases; Pasadena, 3 cases.
Colorado: 8 Counties, Aug. 1-31, 29 cases.
Kansas: 9 Counties, Aug. 1-31, 60 cases.
Louisiana: New Orleans, Sept. 29-Oct. 5, 1 case.
Missouri: St. Joseph, Sept. 30-Oct. 5, 1 case.
Montana: 6 Counties, Aug. 1-31, 7 cases.
North Carolina: 16 Counties, Aug. 1-31, 82 cases.
Utah: Salt Lake City, Sept. 1-30, 3 cases.
Texas: San Antonio, Sept. 30-Oct. 5, 2 cases.
Virginia: 3 Counties, Aug. 1-31, 12 cases.
Wisconsin: La Crosse, Oct. 29-Oct. 5, 1 case.

SMALLPOX—FOREIGN.

Austria: Vienna, Sept. 8-21, 28 cases, 11 deaths.
Brazil: Bahia, Aug. 24-Sept. 7, 51 cases, 1 death; Rio de Janeiro, Sept. 1-8, 8 cases, 3 deaths.
Egypt: General, July 23-Aug. 19, 106 cases, 17 deaths.
India: Calcutta, Aug. 24-31, 2 deaths.
Italy: General, Sept. 20-26, 11 cases.
Java: Batavia, Aug. 24-31, 6 cases, 1 death.
France: Paris, Sept. 14-21, 3 cases.
Madeira: Funchal, Sept. 18-22, 3 cases.
Mexico: Mexico City, Aug. 24-31, 3 deaths; Monterey, Sept. 23-39, 1 death.
Portugal: Lisbon, Sept. 15-21 3 cases.
Spain: Valencia, Sept. 18-22, 11 cases.
Turkey in Asia: Bagdad, Aug. 24-31, present.
Venezuela: La Guira, to Sept. 21, present.

CHOLERA.

China: Tientsin, Aug. 18, present.
India: Bombay, Sept. 4-17, 51 deaths; Calcutta, Aug. 24-31, 28 death; Cochin, Aug. 18-24, 2 deaths; Madras, Aug. 31-Sept. 13, 156 deaths.
Japan: To Sept. 13, Fukuoka ken 687 cases; Yamaguchi ken, 225; Hyogo ken (Kobé), Sept. 5-16, 118 cases, 45 deaths; Osaka-fu, 42; Suma and Rokosan, suburbs of Kobé, 2; Hieroshima ken, 7; Ohita ken, 57; Okayama, 9; Eihme, ken, 2; Nagasaki ken, 26; Kagawa, 1; Saga ken, 1; Wakayama ken, 1; Kanagawa ken, including Yokahama, 1, from S. S. *Glamorganshire*.
Russia: City of Samara, Aug. 20-Sept. 3, 66 cases, 29 deaths, Sept. 4-10, 66 cases, 21 deaths; Govt. of Samara, Aug. 20-Sept 3, 85 cases, 25 deaths; Govt. of Iaroslow, Sept. 4-10, 7 cases, 3 deaths; Govt. of Astrakan, Aug. 20-Sept. 3, 1,066 cases, 469 deaths, Sept. 4-10, 579 cases, 380 deaths; Govt. of Simbirsk, Aug. 20-Sept. 10, 65 cases, 16 deaths; Govt. of Saratow, 381 cases, 191 deaths; Govt. of Nizhni-Novgorod, 140 cases, 57 deaths; Govt. of Kazan, 21 cases, 1 death; Govt. of Baku, 18 cases, 3 deaths; Govt. of Kostroma, 10 cases, 2 deaths; Govt. of Perm, Aug. 20-Sept. 3, 8 cases, 2 deaths; Govt. of Penza, 1 case, 1 death; Govt. of Vladimir, 1 case, 1 death; Territory of Amolinsk, 1 case, 1 death; City of Lodz, Sept. 8, 1 case; Rostow, Sept. 9, 2 deaths.

YELLOW FEVER.

Cuba: Campo Florido, Oct. 9, 2 cases, 2 deaths; Cienfuegos, Oct. 7-15, 2 cases; Total from Aug. 3-Oct. 15, 66 cases, 16 deaths; Palos, Oct. 9-11, 3 cases, 1 death.

PLAGUE—UNITED STATES.

California: Oakland, To Oct. 9, 3 cases, 3 deaths; San Francisco, Oct. 8-13, 4 cases, 2 deaths.

PLAGUE—FOREIGN.

Algiers: Oran, to Oct. 1, 6 cases, 2 deaths; **Brazil**: Bahia, Aug. 24-Sept. 7, 14 cases, 13 deaths; Rio de Janeiro, Sept. 1-8, 8 cases, 3 deaths.
Egypt: Alexandria, Sept. 1-15, 16 cases, 6 deaths; Dakalieh, Prov., Sept. 7-15, 1 case, 1 death.
Japan: Formosa, Aug. 24-31, 1 case, 12 deaths.
India: General, Aug. 18-24, 5,285 cases, 2, 691 deaths; Bombay, Sept. 4-17, 51 deaths; Calcutta, Aug. 24-31, 3 deaths; Rangoon, 29 deaths.
Madagascar: Majunga, Sept. 5, still present.
Turkey in Asia: Beirut, Aug. 9, 1 case.

Medical Education and State Boards of Registration

COMING EXAMINATIONS.

NEVADA State Board of Medical Examiners, Carson City, November 4. Secretary, Dr. S. L. Lee, Carson City.

LOUISIANA Homeopathic Board of Medical Examiners, New Orleans, November 4. Secretary, Dr. Gayle Aiken, 1102 St. Charles Ave., New Orleans.

NEBRASKA State Board of Health, State House, Lincoln, November 6-7. Dr. E. J. C. Sward, Oakland.

MAINE State Board of Registration of Medicine, City Building, Portland, November 12. Secretary, Dr. Wm. J. Maybury, Saco.

CONNECTICUT Homeopathic Medical Examining Board, New Haven, November 12. Secretary, Dr. Edwin C. M. Hall 82 Grand Ave., New Haven.

CONNECTICUT Eclectic Medical Examining Board, New Haven, November 12. Secretary, Dr. T. S. Hodge, Torrington.

CONNECTICUT (Regular) Medical Examining Board, City Hall, New Haven, November 12-13. Secretary, Dr. Charles A. Tuttle, New Haven.

MASSACHUSETTS Board of Registration in Medicine, Room 15, State House, Boston, November 12-14. Secretary, Dr. Edwin B. Harvey, State House, Boston.

WEST VIRGINIA State Board of Health, Waldo Hotel, Clarksburg, November 12-14. Secretary, Dr. H. A. Barbee, Point Pleasant.

MISSOURI State Board of Health, Southern Hotel, St. Louis, November 19-21. Secretary, Dr. J. A. B. Adcock, Warrensburg.

FLORIDA (Regular) Board of Medical Examiners, Jacksonville, November 20-21. Secretary, Dr. J. D. Fernandez, Jacksonville.

New College Merger at Louisville.—The merger between the Louisville Medical College and the Hospital College of Medicine has finally been completed and the college will henceforth be known as the Louisville and Hospital Medical College. It will be the medical department of Central University. The officers of the new college are as follows: Dr. L. S. McMurtry, president; Dr. C. W. Kelly, dean; Drs. H. B. Ritter and H. H. Grant, regents; Dr. Irving Abell, secretary of the faculty. This merger is most commendable and shows that the physicians composing the faculties of the two schools recognized the needs of modern medicine and were willing to make sacrifices in the interest of higher medical education.

Medical Colleges at Home and Abroad.—The Council on Medical Education has succeeded in obtaining practically a complete list of the medical teaching institutions of the world. It is interesting to note that, including 18 or 20 schools which give only a portion of the medical course and which are plainly only parts of other medical institutions, the total number of medical schools in the whole world, outside of the United States, is only 187, while there are 161 in the United States alone. In other words, of the 348 medical colleges in all the countries on the face of the earth, one country, the United States of America, has 161, or 42 per cent. of the total, while the 30 other nations together have only 187, 58 per cent. And yet there are only a few states in this country which place any restraints or safeguards about the chartering or incorporation of medical colleges. In the face of all that has been published in recent years regarding the educational requirements of modern medicine, new colleges are springing up like toadstools each year, without any fair laboratory equipment or facilities for clinical teaching and no probability of getting either, being organized simply for what profit or prestige there may be in it for the "professors." We certainly do not need more colleges of that sort; there are plainly too many already.

Rules for Conducting Examinations in Connecticut.—Dr. Charles A. Tuttle, secretary of the Connecticut Medical Examining Board, sends us the following rules for conducting examinations for license to practice medicine in that state:

First.—Help of every kind must be removed from the reach and sight of the candidate. Any candidate detected trying to give or obtain aid may be instantly dismissed from the room, and his or her paper for the entire work canceled.

Second.—Questions must be given out and answers collected punctually at the time specified for that section.

Third.—If the candidate withdraws himself or herself without permission from the sight of the examiner, his or her examination shall be closed.

Fourth.—All examinations shall be in writing. Pens, blotters, paper or blank books and ink will be supplied by the secretary.

Fifth.—The examination shall continue two days, the sessions of the first day being from 9:30 to 11, 11 to 1, 2 to 4, 4 to 6, respectively; the sessions of the second day being the same, but closing at 4:30 instead of 6 o'clock.

Kansas Reciprocity Report.—Dr. F. P. Hatfield, secretary of the Kansas Board of Medical Registration and Examination, reports the reciprocal licenses issued at the February and June examinations. The following colleges were represented:

LICENSED THROUGH RECIPROCITY.

College.	Year Grad.	Reciprocity with.
Medical Coll. of Alabama	(1893)	Oklahoma
California Med. College	(1905)	Texas
Illinois Med. Coll.	(2, 1905)	Illinois; (1897) Nebraska
College of P. and S., Chicago,	(1899)	Iowa; (1897) (1905) (2, 1906) (1907) Illinois
Northwestern University	(3, 1904)	(1905) (1906) Illinois
Harvey Med. Coll.	(1903)	Nebraska
Bennett Coll. of Ecl. Med. and Surg.,	(1878)	Illinois; (1887) Nebraska
Hering Med. Coll.	(2, 1905)	Illinois
Rush Med. Coll.	(1894)	Iowa; (1903) Illinois
American Med. Miss. Coll.	(1903)	Michigan
Hahnemann Med. Coll., Chicago	(1904)	Illinois
Chicago Homeo. Med. Coll.	(1900)	Illinois
Physio-Med. Coll. of Indiana	(1894)	Iowa
Central Coll. of P. and S., Indianapolis	(1904)	Indiana
University of Iowa	(1887)	(1897) (1899) Iowa
University of Iowa, Homeo. Dept.	(1897)	Iowa
College of P. and S., Keokuk	(1896)	Missouri; (1897) Iowa
Keokuk Med. Coll., Coll. of P. and S.	(1906)	Iowa
Kansas Med. Coll., Topeka,	(1904)	Dist. Colum.; (1905) Colorado
Louisville Med. Coll.	(1897)	Missouri; (1901) Indiana
Kentucky University	(1901)	Kentucky
University of Louisville	(1887)	Missouri; (1895) Nebraska
Hospital Coll. of Med., Louisville	(1896)	Missouri
Maryland Med. Coll., Baltimore	(1906)	Louisiana
Tufts Coll. Med. School	(1902)	Illinois
University of Michigan, Homeo. Dept.	(1879)	Michigan
University of Minnesota	(1890)	Missouri
Hamline University	(1897)	Minnesota
Kansas City Hahnemann Med. Coll.	(1904)	Colorado
Eclectic Med. University, Kansas City	(1905)	Ind. Territory (1906) Missouri
Missouri Med. Coll.	(1889)	Missouri
Central Med. Coll. of St. Joseph	(1896)	(1902) Missouri (1904) Nebraska
Homeopathic Med. Coll. of Missouri	(1872)	(1889) Missouri
St. Louis University	(1905)	Illinois; (3, 1906) Missouri
Barnes Med. Coll.,	(1898)	(1904) Missouri; (1898) Texas (1902) Nebraska
University Med. Coll., Kansas City,	(1907)	Alabama; (1907) Iowa; (1891) (2, 1906) (6, 1907) Missouri
Kansas City Med. Coll.	(1882)	(1893) (1901) Missouri
St. Louis Coll. of P. and S.	(1891)	Nebraska
Ensworth Central Med. Coll., St. Joseph	(1907)	Mass.
Washington University, St. Louis	(1906)	Missouri
Medico-Chirurgical College, Kansas City	(1905)	Missouri
University of Nebraska	(1903)	Nebraska
Creighton Med. Coll.	(1902)	(2, 1906) Nebraska
Lincoln Med. Coll.	(1901)	Nebraska
College of P. and S., New York	(1872)	Maine; (1901) Missouri
United States Med. Coll., New York City	(1880)	Illinois
Bellevue Hospital Med. Coll.	(1896)	New Jersey
University of Buffalo	(1886)	New York
Miami Med. Coll.	(1905)	Illinois; (1882) Ohio
Eclectic Med. Institute, Cincinnati	(1882)	Missouri; 1892) Nebraska; (1896) Iowa (1897) Illinois
Ohio Medical University	(1906)	Ohio
Medical Coll. of Ohio	(1891)	Indiana
Jefferson Med. Coll.	(1904)	Iowa
University of Pennsylvania	(1906)	Missouri
Meharry Med. Coll.	(1902)	Tennessee
University of Tennessee	(1903)	Oklahoma
University of Virginia	(1899)	Missouri
University of Paria, Italy	(1900)	Michigan
University of Marburg, Germany	(1884)	Illinois
University of Naples, Italy	(1903)	(Not stated.)
Non-graduate		Illinois

Kentucky August Report.—Dr. J. N. McCormack, secretary of the Kentucky State Board of Health, reports the written examination held at Louisville, August 1-3, 1907. The number of subjects examined in was 12; total number of questions asked, 120; percentage required to pass, 70, and not less than 60 in any one branch. The total number of candidates examined was 36, of whom 27 passed and 9 failed. The following colleges were represented:

PASSED. College.	Year Grad.	Total Exam'd.
Hospital College of Medicine, Louisville	(1907)	7
Louisville Med. Coll.	(1907)	4
Kentucky School of Med.	(1907)	4
Kentucky University	(1907)	1
University of Louisville	(1907)	8
Eclectic Med. Inst., Cincinnati	(1907)	1
Medical College of Ohio	(1907)	1
University of Pennsylvania	(1906)	1

FAILED.		
Kentucky School of Med.	(1907)	2
Hospital Coll. of Med., Louisville	(1907)	3
Louisville Med. Coll.	(1907)	1
Chattanooga Med. Coll.	(1907)	2
Meharry Med. Coll.	(1907)	1

Less Doctors But More Doctor.—In the thirty-ninth university convention proceedings of the University of the State of New York, President Faunce, of Brown University, after deploring low standards of professional education, made the following statement regarding the medical profession which is well worth reproducing: "One physician of scientific method is worth more to a community than twenty who are guessing and groping. One physician who can assist in purifying the

water supply, in discovering the cause of an epidemic, in introducing better sanitation and hygiene, in preventing rather than curing disease, is of more value than a hundred who deal only with symptoms and surfaces. We do not need more doctors, but we need more doctor."

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

The Work of County Societies.

The *Toledo Medical and Surgical Reporter*, for October, contains an editorial on "The Future of the Lucas County Medical Association," which discusses the functions and work of the county society with special regard to the needs of the profession in Lucas County. A summary of the editorial follows:

The functions of the county medical society are three-fold, viz., scientific, social and material. If medical organization is to be symmetrical, the county medical societies, which are the foundation of the organization, must be properly and safely constructed. They must attain a much broader and more perfect condition than at present, before the superstructures will be ideal in form and function. The scientific aims of the organization are the essential constituents and are necessary to raise individual standards and to furnish inspiration to the members. The social features of the organization are needed in order to hold the structure together and to furnish the good fellowship which is indispensable. The business management of the organization should be carried on in a fair and impartial manner, and should represent the majority of the members and no clique or faction. The duty of the profession to the poor as observed in all ages need not be dwelt on. The duty of the profession to the nation, the state, the county and the city in matters of public hygiene and sanitation is too often forgotten. The duty of the profession to bring to justice those who impose on public ignorance and credulity is too often ignored, as no one is willing to take up this disagreeable task.

Commenting on the work of the Lucas County Society, the editor holds that it is limited largely to the reading of papers and the discussion thereon and that the meetings are not characterized, as they should be, by personal interest and good fellowship. Neither does the profession pay the attention which it should to questions of public policy and sanitation. Such efforts as are made along these lines are spasmodic rather than in pursuance of a definite plan of work.

Regarding the needs of the organization, it is stated that it is necessary for the society to surround itself with a better environment, to cultivate more and better fellowship, to secure a home of its own with accessories for scientific development.

The editorial is abstracted because the organization that is referred to is fairly typical of many of our county societies, especially those which have their headquarters in some of the larger cities. The old idea of the county society, or of any medical society for that matter, was of an organization that met at irregular intervals and that confined itself to reading and discussing scientific papers. To-day we are face to face with duties and problems not only as members of the profession but as members of society as well. So long as problems of public sanitation are to be solved, so long as the health of the community is not all that it should be, so long as the medical profession in a town or county is not looked up to as the adviser and instructor on all matters of health and physical well-being, just so long is there much work to be done of a practical nature which must be done by the medical society or left undone. Pure water, proper sewage disposal, prevention and regulation of epidemics and contagious diseases, pure food, pure drugs, factory and tenement house inspection, proper management of public institutions, safeguarding the lives and health of school children, are all matters which belong primarily to the medical profession and which should be managed by them. For this purpose, the county society is established and for this purpose it should ask the support and cooperation of every broad-minded and unselfish physician. The organization is simply a means to an end. It is the machinery which turns out the results. The society which devotes all of its time to organization is constructing a machine which does nothing but run its own wheels. County societies are just beginning to realize the importance and responsibility of their position, as shown by the editorial quoted above. When all the members of the society are fully convinced of their duty there will be no further doubt regarding results.

The Advantages of a Single Board.

In the *Brooklyn Eagle*, September 26, appears an editorial entitled "The State's Advance in Unifying Medical Education." Inasmuch as it represents the views of the educated and intelligent members of the laity, as well as those of the so-called sectarian physicians of New York on the new law recently enacted, we quote it in full:

The State of New York, by the action of the governor and the legislature, this year placed the examination and commissioning of physicians and surgeons on a new basis. Hereafter the state will simply examine and commission doctors. Those who would become physicians and surgeons must pass a uniform examination and receive, if they pass it, the same title and the same rights. If after they have thus passed, they prefer to call themselves allopaths or regulars or homeopaths or eclectics or osteopaths, or any other old thing they may prefer, they can do so. But in law and in fact, they will be doctors, and the probability is that the wise among them will discard sheer labels.

A gathering of the homeopathic practitioners of the state has been in session here for some days. In its meeting yesterday afternoon, Dr. W. S. Searle, vice-president of the new State Examining Board, set forth the terms and intent of the law, just passed, and advanced certain interesting suggestions for the further improvement of medical education, as he thinks it should be. His analysis of the present law will make it plain not merely to physicians, but to intelligent patients, who are far more important, as they are far more numerous, than physicians themselves. This part of the doctor's address is educationally interesting and valuable. None can question that.

The further steps, which he suggests, must be left to time and will not at once command unanimity. Quite possibly, however, he may prove to be a prophet, for, it should be said, that, many years ago, he secured the system of state examinations of physicians, in lieu of the old habit of having the faculties of colleges pass on the standing of their own students, which naturally they could not do without the imputation of interest.

The present provision of a single board, in lieu of tripartite boards, is an improvement on the immediately preceding system. Dr. Searle as the pioneer, we think, of a state system of examination, within his school of practice, was rightly elected by the regents as a member of the new board, and has very properly been made its vice-president.

His well-reasoned analysis and commendation of the new system naturally drew interrogatories from other homeopathic practitioners, not all of whom were prescient enough to realize that the state had reached a position from which relief was necessary, under a comprehensive act of which the administration could better be trusted to those who supported it than those who did not. The selection of the new examiners was not made without difficulty. But the men chosen will, we think, launch the law on a path of success which will vindicate the wisdom of the governor and of the legislature, in devolving on the Board of Regents the choice of those who are to carry the new policy into effect.

There is no question that the tendency all over the country is strongly in favor of a single standard without any sectarian provisions, so far as the regulation of the practice of medicine is concerned. The idea of having three different boards and three different standards for licensing physicians in one state is palpably absurd, and can not be successfully defended.

Furthermore, the state which has sectarian boards is continually open to assault from so-called new sects which are constantly arising and which argue, with a certain amount of reason, that they are as much entitled to a separate board of examiners as are any of the other sects. Consequently, the sectarian board plan ultimately reduces itself to an absurdity. The only stable, permanent and equitable method of regula-

tion is a single board made up of representative men and giving examinations devoid of sectarianism, which shall fairly test the qualifications of the applicant to practice medicine in any of its forms. This simple standard can then be applied to all who seek the privileges and responsibilities of medical practitioners, and all persons can with reason and justice be required to comply with the provisions of such a law. The state and the courts should recognize no sects or "pathies," but should require all who desire to care for the sick to show their fitness by conformity to a common standard of education and technical training.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES.

DR. JOHN H. BLACKBURN, DIRECTOR.
BOWLING GREEN, KENTUCKY.

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Second Month.

SURGERY OF THE BRAIN.[1]

First Weekly Meeting.

Anatomy of the Cranium.
Anatomy of the Brain.

Second Weekly Meeting.

Physiology of the Brain.
Cerebral Localization.[2]
Fractures of Vault of Cranium.[3]

Third Weekly Meeting.

Fractures of Base of Cranium.[4]
Differential Diagnosis of Concussion and Compression of Brain.[5]

Fourth Weekly Meeting.

Gunshot Injuries of Head.
Intracranial Hemorrhage.[6]
Traumatic Meningitis. Etiology, Symptoms.[7]

Fifth Weekly Meeting.

Abscess of Brain: Pathology, Symptoms, Treatment.[8]
Tumors of Brain: Varieties, Pathology, Symptoms.[9]

Monthly Meeting.

Diagnosis of Tumors of Brain.
Technic of Brain Surgery.
Diagnosis of Fractures of Base.

FIRST WEEKLY MEETING.

Anatomy of Skull.

Demonstrate Specimen.

Vertex of Skull: External surface—boundaries, bones included, sutures, glabella, bregma, inion.
Internal surface—shape, surface markings.
Base of Skull: Internal surface, fossæ.
Anterior Fossa: Shape, boundaries, bones, portion of brain, foramen cæcum, olfactory groove, ethmoidal foramina.
Middle Fossa: Boundaries, bones, portion of brain, optic foramen, sella turcica, cavernous groove, sphenoidal fissure, foramen ovale, foramen spinosum, foramen lacerum medium, anterior surface of petrous portion of temporal.
Posterior Fossa: Shape, boundaries, bones, portion of brain, foramen magnum, jugular foramen, internal auditory meatus, inferior occipital fossæ.
External Surface: Boundaries, occipital, temporal, sphenoid and ethmoid bones, articular surfaces, orifices of foramina mentioned above, stylo-mastoid foramen. Roof and apex of orbit.
Lateral Region: Boundaries, bones.
Temporal Fossa: Boundaries, sutures, stephanion, pterion.
Mastoid Portion: Bones, mastoid process, auditory meatus.
Zygomatic Fossa: Spheno-maxillary Fossa.

Anatomy of Brain.

Membranes of Brain: (1) Dura Mater—structure, attachments, (2) Arachnoid—structure, subarachnoid space, (3) Pia Mater—structure.
Portion of Brain: Medulla, pons Varolii, cerebellum, midbrain, cerebrum.
Ventricles: Lateral, third, fourth, foramen of Majendie, aqueduct of Sylvius, communications, contents.
Distribution of Gray Matter: (1) In the bulb, (2) in the pons, (3) in the midbrain, (4) in the cerebrum, (5) in the cerebellum.
Structure of Bulb: Shape, size, surfaces, white matter, gray matter, pyramids, olives, restiform bodies, funiculi, corpora quadrigemina.
Structure of Pons: Distribution of white and gray matter.
Structure of Midbrain: White and gray matter, aqueduct, fillet. Crus cerebri.
Origin of cranial nerves.
Cerebellum: Vermis, hemispheres, peduncles, white and gray matter.
Cerebrum: Hemispheres, corpus callosum, cortex, lobes, basal ganglia, corpus striatum, optic thalamus, internal capsule, corona radiata, projection fibers, association fibers, commissural fibers.

1. The following text-books will be found of value for study on the general subject: American Text-book of Surgery, International Text-book of Surgery, von Bergman's System of Surgery, Fowler's Surgery, Bryant's Operative Surgery. References are also given below to articles which bear on the different divisions of the subject as indicated by the reference numbers.
2. University of Pennsylvania Medical Bulletin, April-May, 1906.
3. Progressive Medicine, March, 1905.
4. Annals of Surgery, November, 1904, and December, 1906. Also Progressive Medicine, March, 1904.
5. Progressive Medicine, March, 1904.
6. Annals of Surgery, September, 1906. Also Transactions American Surgical Association, 1906. Also Medical News, April 15, 1905.
7. Progressive Medicine, March, 1906.
8. Medical Record, March 10, 1906.
9. American Journal of the Medical Sciences, September, 1903. Also Progressive Medicine, March, 1907. Also THE JOURNAL A. M. A., September, 1906. Also Medical Record, Aug. 11, 1906

Society Proceedings

COMING MEETINGS.

Medical Society of Virginia, Chase City, Nov. 12-15.
Southern Surgical and Gyn. Assn., New Orleans, Dec. 17-19.
American Association of Anatomists, Chicago, Dec. 26-27.
Western Surgical and Gyn. Assn., St. Louis, Mo., Dec. 30-3[illegible].

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Annual Meeting, held in Reading, Sept. 23-26, 1907.

A list of officers elected and a report of the business session appeared in THE JOURNAL, October 5, page 1195. The report of the scientific proceedings follows, first being given the surgical section.

The Repairing of Clefts of the Palate and the Lip.

DR. ALEXANDER R. CRAIG, Philadelphia, considered the conditions particularly from the viewpoint of the general practitioner, and discussed them under the heads of acquired, due to traumatism or disease; and congenital, the latter being the more common. Each case should have careful individual study and early operation, preferably in stages.

DISCUSSION.

DR. ROBERT W. STEWART, Pittsburg, recommended when there is a double cleft of the premaxillary process that the process should be removed and the edges brought together by inserting a heavy silver wire, which operation and the plastic operation on the lip should be done at about the age of three months.

Suprapubic Drainage for Prostatic Obstruction.

DR. ROBERT W. STEWART, Pittsburg, exhibited the apparatus, which he cited as being particularly appropriate to cases in which more radical operation can not be done. The curved shape of the instrument renders it possible to insert it where the ordinary instrument could not be inserted. Care must be taken, however, to prevent the urine from becoming alkaline.

DISCUSSION.

DR. THEODORE B. APPEL, Lancaster, reported the case of a man, aged 70, in whom he had done a suprapubic cystotomy, which was followed by the discharge of a large amount of phosphatic calculus which had been in the bladder. After the operation the man was able to pass a better stream than he had for many years previous, and Dr. Appel believes that better results were obtained than by a prostatectomy.

DR. ROBERT STEWART, in closing, emphasized the fact that another drainage tube could be inserted, if desired, after the removal of the first one.

Intestinal Tears Following Unoperated Appendiceal Abscesses and Their Medicolegal Relations.

DR. AMERICUS R. ALLEN, Carlisle, reported two cases, the first being an unoperated appendiceal abscess rupturing into the bowels, followed seven years later by two intestinal tears at the point of adhesion of a loop of the bowel to itself, remaining from the primary attack of the appendicitis, in which case, although operation was done the day following the intestinal tears, death ensued. The second case was a tear caused by either a kick or a fall occurring simultaneously one year after the rupture of the appendiceal abscess, followed in three days by death from peritonitis.

Abdominal Pain in Atypical Appendicitis.

DR. L. JAY HAMMOND, Philadelphia, stated that these pains are due to abnormal position of the appendix, adhesions, etc., and very often conflict with diseases of the liver and uterus, gastritis, and internal hernia. Among the symptoms which are constantly present and usually persistent which should aid in the diagnosis, are localized rigidity, pain after taking food, intestinal distension, nausea and vomiting.

DISCUSSION.

DR. WILLIAM L. ESTES, South Bethlehem, stated that the line of contact is provided with sensory nerves, and that the pains are produced either by destruction of the nerves or pressure thereon by the discharge of visceral contents.

DR. GEORGE ERETY SHOEMAKER, Philadelphia, called attention to the importance of the part played by the appendix in all cases of abdominal pain, and stated his belief that no abdominal operation should be performed without examining it. He cited cases in which he has found appendicitis as a complication of extrauterine pregnancy, ovarian cysts and gallstones.

DR. JOHN B. ROBERTS, Philadelphia, remarked on the danger of giving enemas following abdominal operations on account of their liability to cause rupture.

DR. GEORGE W. GUTHRIE, Wilkes-Barre, said that the giving of enemas in cases of appendicitis is liable to cause a perforation, followed by general flooding of the abdominal cavity and possibly peritonitis.

DR. JOHN H. GIBBON, Philadelphia, cited three cases of urethral calculus, with symptoms simulating those of appendicitis, and directed attention to the necessity of considering this state in suspected appendicitis cases.

DR. L. J. HAMMOND stated that the experience of Dr. Estes did not agree with some observations he has made recently in two patients on whom he operated for appendicitis under local anesthesia, in neither of whom was any pain complained of until he began handling the intestines.

Postoperative Phlebitis.

DR. GEORGE W. GUTHRIE, Wilkes-Barre, stated that this complication is a great calamity, and in many instances causes more suffering than the condition for which the original operation was done. He stated that the opinions of surgeons differ very widely as to the etiology and pathology, and that the theories of etiology which are usually advanced, traumatism and infection, are not satisfactory. The analogy between this and the same complications in the puerperal cases, and the fact that its occurrence is almost always associated with abdominal operations, suggests that local inflammation of the vein may occur in the pelvic cavity. Prolonged rest in bed, elevation of the limb, bandaging and salicylate of sodium are the best remedies.

Suppurating Parotitis Following Abdominal Operations.

DR. WILLIAM E. PARKE, Philadelphia, referred to the rarity of the condition, discussed its etiology, and the literature and experience of operators. He reported a case of severe neurasthenia, backache, dysmenorrhea and retroverted uterus. The patient was operated on and an apparently non-septic appendix removed, following which there was a rise of temperature and the attack of suppurating parotitis.

DISCUSSION.

DR. PHILIP Y. EISENBERG, Norristown, declared that heredity plays an important rôle in these cases of phlebitis, and cited the cases of a mother and two sons, in whom phlebitis had occurred following, respectively, operation, infected wound and typhoid fever.

DR. JOHN R. ATLEE, Lancaster, reported two cases of phlebitis occurring without operation, one in the interval between attacks of appendicitis, and the other in compound fracture of the right leg.

Chronic Cystic Mastitis.

DR. JOHN SPEESE, Philadelphia, discussed the symptoms, pathology and treatment with report of cases. He stated that the symptoms are not constant and are most likely to be confused with carcinoma in its various forms, tumors of puerperal origin, etc. He believes that the so-called plastic operation has advantages in a majority of cases, and that the diagnosis should be confirmed at the time of operation by means of frozen sections.

DR. WILLIAM L. RODMAN, Philadelphia, declared that neither the frequency of the cases, nor the liability of malignancy is appreciated. He believes that the best results can be obtained by the plastic operation advocated by Weir, and urged the necessity in all cases of having a competent necropcist at hand to make the diagnosis from the frozen sections.

DR. JOHN H. GIBBON, Philadelphia, emphasized the necessity for a careful diagnosis before doing the radical operation.

DR. JOHN SPEESE, in closing, stated that he had seen one case occurring in a girl of only 20, which was in every way similar to a case occurring in a woman much older.

(To be continued.)

KENTUCKY STATE MEDICAL ASSOCIATION.

Fifty-second Annual Session, held at Louisville, Oct. 15-17, 1907.

The President, DR. D. M. GRIFFITH, of Owensboro, in the Chair.

Medical Defense and Expert Testimony.

PRESIDENT GRIFFITH said that the State Board of Health has vouchsafed protection to the people by preventing the spread of contagious diseases, and to the profession by demanding a higher standard of intelligence and morality on the part of those who seek to join the ranks. He advocated the establishment of a medical defense fund, and said that it can be accomplished by raising the dues of the members $1. This would establish a fund sufficient for the purpose, and, according to the experience of other states, would not occasion the loss of any material number of members. Inasmuch as fully 80 per cent. of all malpractice suits originate in the criticism of doctors, and that 90 per cent. are without just and good grounds, the need of protection on the part of the profession is realized, and such a measure should be advocated. Referring to expert testimony as it applied to physicians, he said the association is indebted to the Kentucky State Bar Association in taking the initiative in the important question of improving medical expert testimony. Physicians are noted for their disagreements on medical questions. Their testimony on issues which have been securely settled by the scientific world is often at such variance as to impair their standing in court. It is a sad and curious commentary on their boasted progress that physicians should be so diametrically opposed in opinions on definitely determined points, and so viciously antagonistic toward each other when brought into active competition. He

recommended that a committee of three be appointed to confer with a similar one from the Kentucky State Bar Association.

Contract Practice Committee Appointed.

A permanent committee of five on contract practice was appointed, whose duty it is to investigate and report to the house of delegates at its next meeting all forms of contract practice, and to recommend means of combating the evil.

Fraudulent Advertisements.

The secretary was instructed to send a telegram to the synod of the Southern Presbyterian Church and to the governing bodies of other church organizations, respectfully urging on them to discontinue the publication of advertisements that are fraudulent and misleading in character.

Certified Milk Legislation.

The following resolution was offered and adopted:

Resolved, That it is the recommendation of the Committee on Legislation that a law be enacted which will make it illegal for the term "certified milk" to be used by any person or persons except by authority of a regularly appointed medical milk commission, appointed by a county medical society.

The following preamble and resolutions were introduced by Dr. M. K. Allen, health officer of Louisville, and unanimously adopted:

WHEREAS, It is believed by public health workers that from 15 to 30 per cent. of dairy animals in this country have tuberculosis, and as it is well known that animal tuberculosis can be transmitted to man through the use of milk coming from such diseased animals, it is highly proper that steps should be taken to prevent the spread of this disease by this means; therefore, be it

Resolved, By the State Medical Society, that the next General Assembly of the State of Kentucky is hereby requested to enact a law requiring all suspected tuberculous herds of dairy cattle to be tuberculin tested, under the supervision of the veterinary surgeon of the State Board of Health to determine whether or not tuberculosis is present in any herd of dairy cattle which may be reasonably suspected by a properly organized health authority.

Resolved, That if inoculation with tuberculin shows evidences of tuberculosis by reaction in any suspected herd of dairy cattle, the same shall be subjected to postmortem examination, and the owner of said animal or animals so slaughtered, shall receive from the state treasury a reasonable indemnity for such slaughtered animals.

Resolved, That the president and secretary of the society be requested to transmit to the two presidents of the incoming General Assembly a copy of the preamble and resolutions hereby offered as the sense of the meeting, with the request that that honorable body give the same favorable consideration.

Home for Treatment of Epilepsy.

The following resolution, presented by Dr. J. C. Moseley, was adopted:

Resolved, That the Committee on Public Health and Legislation of this society be instructed to bring the matter of a home and farm for the treatment of epileptics before the General Assembly of the State of Kentucky and urge the importance of such treatment for the unfortunate epileptics of the state.

Endorse Council on Pharmacy and Chemistry.

DR. CLARENCE H. VAUGHT, chairman of the committee on pharmacology, presented the following report, which was unanimously adopted:

WHEREAS, The American Medical Association has established a Council on Pharmacy and Chemistry, composed of scientists of world-wide reputation and standing, whose function is to examine pharmaceutical products in order to be able to inform the profession as to the real therapeutic value and chemical composition of said products; and

WHEREAS, After careful examination of many hundreds of said products it has officially announced its approval of a large number of them, and, in order to make clear to the profession the methods and purposes of their work, has published exposures of a large number of the fraudulent preparations that have been foisted on the profession and through them on the public by interested owners and manufacturers, frequently laymen, ignorant of the use of drugs, except their meretricious use, as examples of the much larger number which they have found of little or no value, or positively harmful; and

WHEREAS, We believe that every physician in Kentucky is vitally interested in the work of this Council and desires in every possible way to promote its usefulness and interest; and

WHEREAS, The greatest aid to the nostrum manufacturers in their nefarious and avaricious work has been the medical press, whether controlled by medical organizations, individual members of the profession or interested lay firms; and

WHEREAS, We believe the time has arrived when the profession of medicine and all agencies controlled by it should divorce itself permanently, finally and forever from those interests which, like ghouls, prey on the sick and afflicted through the commercial sale of nostrums and dishonest, so-called proprietary, medicines; now, therefore, be it

Resolved, By this Association, That we heartily endorse the formation of the Council on Pharmacy and Chemistry; that we extend it our confidence and congratulations on the splendid work already accomplished, and that we pledge it our unanimous support in its purpose of freeing our profession and its publications from nostrum control; and be it further

Resolved, That in pursuance of this object we request each county society in Kentucky to devote a special session to the consideration of this important question, with a view to securing the active aid of every licensed practitioner in the state, and that the council of this association be requested to omit from the advertising columns of our *Journal* all pharmaceutical preparations which are not manufactured in conformity with the U. S. Pharmacopeia or the National Formulary until they have been approved by the Council on Pharmacy and Chemistry of the American Medical Association; and be it

Resolved, That the council be directed to communicate with the editors, owners, collaborators and publishers of the medical journals of this country on this subject, and to announce to the profession of Kentucky through the columns of the *Kentucky State Medical Journal* such publications as are willing to assist the profession in freeing their columns of nostrum advertising, and we hereby pledge our support to such journals even if they find it necessary to increase their subscription rate, and, further, be it

Resolved, That we expressly condemn the publication of so-called medical journals by interested manufacturers of nostrums, and request the profession of the state to decline to receive them.

The house of delegates adopted the following resolution:

Resolved, That the society recommends the state legislature to pass a bill requiring graduation from a recognized college of pharmacy with its accompanying degree, as a qualifying necessity for permission to enter examination before the State Board of Pharmacy, for license as a registered pharmacist.

Life Insurance Examinations.

The following resolutions were adopted:

Resolved, That for each medical examination for life insurance the minimum fee should be $5.00; that the association unqualifiedly condemns any licensed practitioner who accepts such responsible work for a smaller fee as guilty of a breach of professional courtesy as well as of sound business judgment; and, further,

Resolved, That it is derogatory to the dignity of a physician to accept service in such a company, notoriously antagonistic to the welfare and best interest of the profession; that reputable insurance companies and other organizations needing and employing competent medical advisers be requested not to employ them; that they should not be recommended for medical appointment to political and other preferments or otherwise by the members of this association or of its constituent county societies.

(To be continued.)

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Thirty-third Annual Meeting, held at Columbus, Ohio, Oct. 8-10, 1907.

The President, DR. HORACE H. GRANT, Louisville, in the Chair.

The scientific work was divided into medical and surgical sections. The officers elected were named in THE JOURNAL last week.

Local Versus General Anesthesia in Rectal Surgery.

DR. G. B. EVANS, Dayton, Ohio, believes that by using a local anesthetic previous to general anesthesia the amount of the general anesthetic is appreciably lessened; the dread and fear are diminished, also shock and danger. Therefore, the combined method of narcosis, less anesthetic, suspending shock incident to conscious dread, as well as anesthetic shock, renders more complete the operative area and consequently more satisfactory work. It is easy to operate on prolapsing piles, but not so simple to operate on piles above the sphincters, yet they demand operative interference. Operation for hemorrhoids is serious, often attended by some shock, and the greatest caution should be observed to secure asepsis. He does not think it is best for patients that general practitioners should be taught that aseptic precautions at the time of operation and rest at home for a few days are unnecessary.

DR. BERNARD ASMAN, Louisville, gave a few reasons for some unsatisfactory results in the treatment of ano-rectal diseases. A correct diagnosis is always a first essential, for without it all treatment is largely guesswork. Of all rectal ailments, anal fissure is ordinarily thought to be one of the simplest and easiest to cure, yet experience frequently proves it to be most unyielding. Ninety-nine per cent. of the laity assume that all ano-rectal troubles are hemorrhoidal in character, and it is not uncommon for them to approach the physician with a diagnosis ready-made, and to preface a description of the case in question with, "Doctor, I have piles." The doctor is then apt to accept the diagnosis with but a superficial examination, or perhaps no examination at all, and hence failure to afford relief follows. There are comparatively few cases of hemorrhoids pure and simple; they are usually complicated by other local disease,

perhaps requiring attention at the same time if a perfect result is to be expected. Cases were cited in point.

DISCUSSION.

DR. B. MERRILL RICKETTS, Cincinnati, said that surgical anesthesia should be eliminated as far as possible in all work, especially now as capital operations can be done under local anesthesia. Local anesthesia for the treatment of hemorrhoids should not be denounced, nor should local anesthesia be recommended for all kinds of hemorrhoids. There are certain hemorrhoids that can be removed radically without anesthesia. He cited such cases. The trend of the times is not to put patients to bed for days and weeks for the removal of hemorrhoids, when they can be removed at the office of the surgeon or at the homes of patients with impunity. Hemorrhoids should be properly classified, and each class should receive a separate and distinct treatment, some with and some without anesthesia; some with and some without ligature; some with crushing and some with simple incision.

DR. J. RAWSON PENNINGTON, Chicago, emphasized the importance of making a correct diagnosis. If a patient has a small contracted anus, with a few painful hemorrhoids, he or she should be given a general anesthetic and operated on. If the patient has a patulous anus, and the hemorrhoids are easily prolapsed, especially internal hemorrhoids, there is no need for a general anesthetic. He described his method of removing hemorrhoids. When the rectum is everted and the hemorrhoids are on the outside, with a pair of scissors they can be removed very readily, the rectum then dressed in extension, and putting into the bowel a rubber-covered tampon. When this is done there is no tissue under stress. Tissue under stress is not in the best possible condition to defend itself against infection.

DR. H. O. WALKER, Detroit, has operated on a large number of cases of hemorrhoids, and has not yet had serious bleeding from the rectum. Hemorrhoids should be operated on under the same surgical principles as are carried out in operating on other parts of the body. If there should be hemorrhage, it could be controlled by ligature or hemostatic forceps.

DR. E. B. SMITH, Detroit, referred to the importance of making a complete and thorough examination. This can not be done under local anesthesia. He has never been able to do it, nor has he seen any one else do it with satisfaction. He has had the privilege of operating secondarily on patients who had been operated on under local anesthesia. He operates on these cases under general anesthesia.

The Frequent Interdependence of Dislocated Kidney, Gall-Bladder Trouble and Appendicitis.

DR. EARL HARLAN, Cincinnati, summarizes the salient features of his paper as follows: (1) Dependent pathology, accompanying the primary lesion of dislocated kidney, gall-bladder trouble and appendiceal irritation of a severe nature, is of frequent concomitant occurrence. (2) Many cases have undergone operation for appendiceal trouble or gall-bladder trouble wherein the causal factor was a dislocated kidney, the latter producing pressure interference to the bile outflow or bowel current. (3) All cases presenting for abdominal treatment, complaining of indefinite and recurrent distress, discomfort and pain, the attacks being accompanied with the presence of an excess of stagnant gas at certain points in the bowel, and in which the involvement of the stomach, gall bladder and appendix are more or less equal, should receive the careful consideration of the physician, in order that an accurate differential diagnosis may be made. (4) In the vast majority of cases a freely movable kidney presents no pathology on the part of the organ itself, and this immunity may cover a considerable space of time, after which there may appear symptoms of functional and mechanical disturbance on the part of the stomach, cholecyst and bowel. (5) On account of the wide and uncircumscribed range of pathologic symptoms produced by a dislocated kidney, it is more often liable to go undiagnosed than are other symptoms producing abdominal lesions. (6) Permanent and complete relief results only from a correction of the primary lesion with its dependent pathology.

The Disposition of the Appendiceal Stump.

DR. B. MERRILL RICKETTS, Cincinnati, concludes that the stump should be as short as possible. Any one of the purse-string methods is dangerous. Ligation for the firm appendix and extirpation for the soft one, are the better methods. Hemorrhage from the appendiceal vessel is a common accident, and one that can be avoided. The escape of feces into the peritoneal cavity is also frequent. Infection from the stump occurs rarely. Adhesions resulting from a denuded stump, or mesocolon resulting from ligature, are of little consequence. Ligature around the stump without mucosa between it and a stenosed Gerlach valve will not cause pain, otherwise it may do so. A more definite classification of the pathologic appendix and its results should be more generally accepted. The mortality in cases with vomiting, ileus, obstruction, peritonitis and distension is much higher than reports would indicate. It is probably as great as 90 per cent., if not more. It is difficult to understand why so few such cases have been reported, and still more difficult to understand why they are absent in the work of one and numerous in that of others. The average per cent. of mortality for acute cases (7.5), and the average per cent. for chronic cases (1.75) is probably a fair estimate for the work during the last five years. Linen and silk ligatures have more advantages than catgut, without the disadvantages, and should therefore be given preference. Ligatures of any material or character should be transfixed in any tissue, especially within the peritoneal cavity. Stumps of living tissue should be sutured or ligated with transfixion, especially if there are canals of any character within the stump.

DISCUSSION.

DR. H. O. WALKER, Detroit, believes in ligating the stump of the appendix. After tying off the appendix close to the cecum, he disinfects it with carbolic acid and alcohol, and then by means of a purse-string suture covers it up. As long as the suture material is aseptic it does not make much difference what is used. He has never had a death from hemorrhage in appendicitis except where it occurred some ten days or two weeks after the operation, due to the sloughing of the omentum, rupture and obstruction from a gangrenous condition of the arteries of the appendix from which the patient died.

DR. A. M. HAYDEN, Evansville, Ind., said that if one uses silk or linen in uncomplicated cases, there were liable to be suppurating sinuses as a result. In these cases he would use catgut, which, in infected cases, becomes disintegrated in seven or eight days, and there were no suppurating sinuses following. He uses linen in all of his clean cases, but in the infected ones he prefers catgut.

DR. CHARLES STOLTZ, South Bend, Ind., spoke of the use of the thermocautery, and believes if it is used it will afford hemostasis without the unsurgical method of tying off a mass and letting it stick up in the cavity, without knowing what would become of it.

DR. CHARLES A. BONIFIELD, Cincinnati, has excised the appendix, closed the wound with chromicized catgut, and then covered the surface by bringing the meso-appendix up over it. He has done this for several years, and to his knowledge has never had a patient die from the bowel opening.

DR. RICKETTS said that the so-called absorbable ligatures fail in many of these cases, and that there is nothing better than catgut or linen. It can be boiled and thoroughly sterilized. He has done four hundred appendectomies without a serious hemorrhage or infection, and has never had to take a ligature out. He never uses catgut in his abdominal operations, but employs Pagenstecher linen for almost everything.

When Should Gastric Ulcer Be Treated Surgically?

DR. MILTON R. BARKER, Chicago, said that all cases of gastric ulcer, regardless of any class in which they may be placed, excepting the neglected class, should primarily be treated medically, but that in the light of surgical achievements in this malady the internist has a double responsibility to his patients: First, to do all his methods can do, and, second, to discontinue those methods before his patient has reached such a condition that surgical methods can not be instituted with-

out undue hazard. When medical and surgical science can thus work together the treatment of gastric ulcer will have attained the acme of perfection.

The Removal of Adenoids.

DR. JOHN F. BARNHILL, Indianapolis, described a safe and rapid method of removing adenoids. The selection of a proper curette having been made, an assistant takes the child on his lap, places the patient's knees between his own knees, and thus clamps them as in a vise. The child's head is placed on the left shoulder of the assistant, where it is firmly held between the two hands of a second assistant. Neither a tongue depressor nor mouth-gag is necessary. The operator sits on a chair facing the patient, who is requested to open the mouth. The curette is quickly inserted behind the palate, the posterior surface of which it should closely hug until the crest of the instrument presses firmly against the vomer at its point of junction with the body of the sphenoid. In this position the patient's mouth must be opened to its fullest limit, and the curette will occupy a position in a plane about forty-five degrees to the horizontal when the ample width of the fenestra surrounds the entire growth. Keeping the curette exactly in the center line of the patient's nasopharynx the crest of the instrument is pressed firmly against the vault, in which situation it is quickly pushed backward and downward, the cutting blade of the curette closely hugging the entire base line of attachment of the adenoid, which is thus completely severed *en masse* and falls from the patient's mouth when the head is held forward for that purpose. In the majority of cases only twenty or thirty seconds is required to do the entire work after all is in readiness.

The Surgical Treatment of Some Inflamed Glands.

DR. E. B. SMITH, Detroit, urged the enucleation of inflamed suppurating glands. Where there is a hernia and the protruding tissue irritates a set of glands then the hernia and not the glands must be cared for. Where the inflammation has progressed to the stage where resolution can not be brought about by poulticing, or where a simple incision will not effect a cure and the tissue is broken down, or there is an accumulation of germs, then the only logical procedure is a radical operation. Glands found beyond hope of repair are excised, thus getting rid of a large number of germs, the remaining tissues being treated antiseptically and repaired. Repeated attacks of inflammation render the glands weak and susceptible to disease and suppuration. When glands are incised, the inflammation and suppuration either subside or become quiescent for a time, and then from a slight trauma become inflamed and suppurate.

Goiter.

DR. GEORGE W. CRILE, Cleveland, Ohio, recently made a study of his cases of operations on the thyroid gland, numbering 152, and he briefly summarized them from the standpoint of the practical management of the surgical thyroid. The development of the surgery of the thyroid is best appreciated by the statement that the mortality from thyroidectomy in simple goiters, in non-malignant and benign tumors, has fallen from 40 per cent. to a fraction of 1 per cent. In his own series, the last 101 such operations have been done without a fatality. The surgery of benign tumors and hypertrophies of the thyroid gland is now placed on a basis comparable with that of appendicitis in the quiescent period, of gallstones, and of ovarian tumors. The mortality from unexpected complications is perhaps one in one hundred or two hundred cases in the hands of a surgeon experienced in this line. Exophthalmic goiter is demanding much further investigation. Excision of the thyroid in exophthalmic goiter breaks a pathologic chain and the cure is permanent. In a goiter under observation, if the gland begins to grow it should be promptly excised because of the great possibility of its becoming a malignant growth. Many more thyroid glands should be removed, just as benign tumors elsewhere are removed, to prevent the appearance of a malignant growth.

Neuroses of the Bladder.

DR. ROBERT C. M. LEWIS, Marion, Ohio, considered a few of the neurotic conditions which are traceable to the genito-urinary organs, especially those involving the vesical neck and the deep or prostatic urethra. In neurotic bladder troubles he gives first place to hyperesthesia because he believes it is met with more frequently than any other of its order. Mental worry or overtension of the nerves for a long period may produce a vesical hyperesthesia with a train of symptoms simulating a true cystitis; but, as a rule, if there is no inflammation, the absence of mucus or muco-pus in hyperesthesia will give a line of distinction so that cystitis may be excluded as a complication or as a sequel to other diseases of the bladder there is found no other condition which gives so much mental and physical discomfort as hyperesthesia. Men are sensitive when it comes to genitourinary troubles, but if a physician once gains the confidence of such patients, and affords them relief, they will not run away.

Intramural Transplantation of the Round Ligaments Versus the Alexander Operation or Ventrosuspensio-Fixation.

DR. CHANNING W. BARRETT, Chicago, gave a summary of the work done with intramural transplantation of the round ligaments, and, after comparing it with the Alexander operation and ventrosuspension, presented the following conclusions: (1) The Alexander operation fails because most cases of retrodisplacement are complicated. (2) An operation to be widely useful must open the abdomen for inspection and correction of complications. (3) It should be capable of being combined with the best incision for doing work. (4) It must not create false ligaments which will not evolute during pregnancy and involute thereafter. (5) There must be no abnormal arrangement of natural ligaments which allows them to run transperitoneally. (6) When the round ligaments are ample, the inner, stronger portion of the ligament should be chosen. (7) Operation for retrodisplacement must often be performed after much other operating, and so should not offer any tedious technicalities, such as are found in the external search for the ligaments. (8) His internal inguinal shortening and transplantation of the ligaments through the abdominal wall is submitted for comparison with external shortening of the ligaments, or ventrosuspension operations, as one seeming to meet the essential requirements of an operation for retrodisplacements.

(*To be continued.*)

AMERICAN ROENTGEN RAY SOCIETY.

Eighth Annual Meeting, held in Cincinnati, Ohio, Oct. 2-4, 1907.

(*Concluded from page 1391.*)

Postoperative Treatment of Carcinoma.

DR. WALTER B. HILL, Cleveland, Ohio, claimed that the only rational treatment of carcinoma is early and radical operation, followed at once by roentgenization. After removing as much diseased tissue as possible, the wound should be packed with gauze, suturing being omitted entirely. On the second day after the operation the packing is removed and the whole denuded area is exposed to the Roentgen ray. If necessary, the dose of the ray may be carried to the point of producing a slight dermatitis. Treatments are given every other day, the vacuum of the tube being about medium, about a Walter 4, the rays being passed through a filter of leather or aluminum. From 15 to 20 treatments are given. The author insisted on a perfect technic and careful administration of the treatments.

DISCUSSION.

DR. KENNON DUNHAM, Cincinnati, agreed with Dr. Hill that roentgenization should be begun as soon as possible after operation, and that the wound must not be sutured so as not to place in the path of the rays any more tissue than necessary.

DR. GEORGE C. JOHNSTON, Pittsburg, pointed out that postoperative roentgenization is of advantage and to be desired because of the fact that often metastases have formed and been overlooked by the surgeon because there was no external evidence of such spread, and the Roentgen ray is effective in just such cases. The wound, the mediastinum and the axilla can be

rayed immediately after the operation, and it has been shown that in many instances such raying is most effective in preventing a recurrence and in disposing of any new growths in these regions.

DR. A. G. COLE, Indianapolis, did not have much faith in the postoperative treatment of carcinoma when the primary tumor was situated under the skin.

DR. GEORGE E. PFAHLER, Philadelphia, cited a case where recurrences took place one and two years after operation, causing a paralysis of the arm. The Roentgen ray was used, and three years after treatment the patient is entirely well. He did not agree with Dr. Cole that the deep-seated cells can not be reached by the ray.

DRS. MCCOLLIN and LEONARD, Philadelphia, and E. G. WILLIAMS, Richmond, Va., agreed that the ray can reach the deep-seated cells equally as well as it can reach the superficially placed cells, and cited instances in point to prove their statements.

Roentgen Ray in Sarcoma.

DR. GEORGE E. PFAHLER, Philadelphia, reported 22 cases of sarcoma in which the ray was employed successfully in a number of instances, but the ultimate result was good in only a very few cases.

DISCUSSION.

DR. RUSSELL H. BOGGS, Pittsburg, was not very sanguine as to the results of roentgenization in sarcoma, but he called attention to the fact that these cases are not seen by the roentgenologist until the disease is very far advanced, which may account for the lack of better results. One of his patients who had a sarcoma of the clavicle has remained well for six months. In four postoperative cases there has not been a recurrence.

DR. JOHN W. HUNTER, Norfolk, Va., stated that small sarcomas should be rayed until they are freely movable, and then be removed. Postoperative roentgenization will dispose of any remaining tumor cells. The primary roentgenization serves to stimulate connective tissue growth around the sarcoma so as to encapsulate the tumor.

President's Address.

DR. PRESTON M. HICKEY, Detroit, reviewed the history and growth of the society and pointed out how its work can be furthered by the members and the value of the Roentgen ray demonstrated to best advantage. Its uses and limitations were not overlooked.

Protection of Operator.

DR. CHARLES L. LEONARD, Philadelphia, stated that the results of exposure to the ray are due, in large measure, to injury of the trophic nerves and a consequent decreased nutrition of the tissues. The area involved extends beyond the visible lesion, hence local medication with stimulants is contraindicated until after recovery of the trophic nerves from the injury inflicted. The lesions should be let alone and protected from further irritation. Prophylactic treatment is the best, the radiation being confined to the area to be examined or treated. This can be best accomplished by surrounding the tube with sheet lead, six pounds to the square foot, enclosing the active hemisphere of the tube. The tube may be enclosed in a box of sheet lead, the box being provided with diaphragms of various sizes through which the rays may pass. There should be air insulation of four inches on each side of the tube, or a total of eight inches which gives sufficient working distance for the internal resistance of the tube. The author has found immersion of the hands in hot water the best treatment for these burns, and after sufficient time (years) has elapsed for the nerves to regain their tone, skin grafting may be resorted to to restore lost tissue or to replace an indolent ulcer. He condemned the use of any ointments, no matter what the composition.

Protection of Patient.

DR. RUSSELL H. BOGGS, Pittsburg, emphasized the value of filters, tube distance, and time of exposure, as prophylactic measures, and the susceptibility of tissues and the stage of maturity of tissue cells as factors in producing burns. He advised that the operator protect organs that are easily influenced by the ray, such as the reproductive organs, the liver, spleen, kidneys, in fact any of the organs made up of epithelial cells.

DISCUSSION.

In the discussion on these two papers, the speakers one and all emphasized the importance of not being exposed to the rays, either primary or secondary, at any time or for any purpose, because it is impossible to gauge the effect that they may have. Dr. Charles H. Bowen, Columbus, described a cabinet he has devised. From within this he is able to carry on all his work without any exposure to the ray. Others have had their offices built in such a way that a solid wall of sheet lead is interposed between the radiographic room and the office and other working rooms. By means of mirrors and other devices the action of the tube is watched and perfect regulation is possible. It was generally conceded that it is not necessary for the operator ever to come within the reach of an excited tube, and that the skin of the operator should not show any evidences of his work. The patient should also be protected in every possible way by means of shields placed around the tube, diaphragms and such other apparatus as is necessary, but the protection of the operator should be the first and most important consideration because he is exposed to the rays every day and all day, whereas the patient is exposed for a short time only.

Radiography of Fractures.

DR. ARTHUR HOLDING, Albany, N. Y., emphasized the importance of making a radiograph of every case of fracture before and after the dressing is applied, or, if two exposures are refused by the patient, to make at least one after the dressing has been applied so that the results of the setting of the fracture may be noted. Cases were cited to show that many apparently perfect results are shown to be very imperfect if a radiograph is made.

Non-Tuberculous Arthritis.

DR. ALBERT H. FREIBERG, Cincinnati, discussed particularly the errors which are likely to be made in interpreting plates made of non-tuberculous forms of arthritis, these errors being the result of insufficient familiarity with the pathologic anatomy and the character of the process. He also dwelt on the value of inflating the joint with oxygen as a diagnostic aid.

Early Radiographic Diagnosis of Pulmonary Tuberculosis.

DR. LEWIS G. COLE, New Nork City, showed by clinical observation and postmortem studies that nearly every city resident (98 per cent.) has at some time in his life been the subject of a tuberculous process in his lungs. It could not, of course, be determined whether the process is an active one, unless one could skiagraph the lungs at regular intervals. Tuberculous infiltration of the lungs can be determined by means of a radiograph long before any physical signs can be detected, and Dr. Cole cited a number of instances in which some of the best clinicians of New York failed to find any physical signs pointing to a pulmonary tuberculosis where the Roentgen ray showed distinct infiltration, and the subsequent history of the case confirmed the diagnosis. In several instances the first evidence of pulmonary disease was hemoptysis, apparently brought on by violent exertion. Physical examination was negative, but a radiograph showed pulmonary tuberculosis very distinctly. Dr. Cole is firmly convinced of the efficacy of the radiograph as a means of making an early diagnosis of pulmonary tuberculosis, and showed a large number of lantern slides of negatives to prove his statement.

DISCUSSION.

DR. A. W. CRANE, Kalamazoo, Mich., agreed with Dr. Cole that it is possible to get evidence of pulmonary tuberculosis by means of the radiograph long before any physical signs can be discovered.

DR. HENRY HULST, Grand Rapids, Mich., said that while it is true that the radiograph will disclose pulmonary tuberculosis early, it is equally true that in some cases the tubercle bacillus may be discovered in the sputum and no radiographic

findings be visible. He believes that the Roentgen ray is of great value in the diagnosis of incipient tuberculosis, but its greater value lies later in the disease. The ray will not record any changes until they exist, and it is a very difficult matter to interpret a lung negative correctly. The clinical data are of considerable value in this connection.

DR. P. M. HICKEY, Detroit, said that the Roentgen ray is simply a recorder of densities, which must be interpreted as such, and that to try to establish that a certain density is tuberculous is treading on dangerous ground.

DR. GEORGE C. JOHNSTON, Pittsburg, and DR. GEORGE E. PFAHLER, Philadelphia, agreed with the author that the Roentgen ray is a most valuable aid in the diagnosis of incipient cases of tuberculosis, and each speaker cited a case in point.

Roentgen Ray in Leukemia.

DR. JOSEPH F. SMITH,, Chicago, recapitulated the experimental studies of the action of the Roentgen ray in leukemia, and the clinical aspects of the treatment. The author found that the Roentgen ray produces in leukemia a disintegration of the leucocytes, particularly the younger cells, such as the myelocytes and the non-granular mononuclear cells. The serum of a patient improved by Roentgen treatment injected into animals causes leucopenia. Added to the leucocytes of another individual in the hanging drop it disintegrates the cells, having a selective action for mononuclear cells. The strength of the leucolytic action seems to be proportionate to the clinical improvement of the patient under treatment. The serum of the treated patient agglutinates normal red corpuscles, the degree of agglutination varying, roughly, with the leucolytic action. The injection of a strong leucolytic serum from a leukemic patient clinically improved by Roentgen treatment into an untreated patient suffering from lymphatic leukemia causes a decided and rapid fall in the number of leucocytes, the mononuclear elements being first affected. With repeated injections a partial immunity to the serum was established.

DRS. HENRY K. PANCOAST and ALFRED STENGEL, Philadelphia, reported on 123 cases of leukemia treated with the Roentgen ray. Final reports of 63 cases were obtained, with the following results: Permanent cures after three to six years, 6.35 per cent.; died, or in chronic condition at time of last report, 87.3 per cent.; remainder still under treatment. The authors conclude that the Roentgen ray does not offer much hope of ultimate success; on the other hand, it has some virtues because of a decided and powerful therapeutic action. Primary symptomatic cures were affected in 39.5 per cent.; initial improvement in 28.5 per cent. Total cases more or less benefited, 68 per cent.; no favorable action, 25.5 per cent. A more rational and scientific method of employing the Roentgen ray gives reasonable assurance of better results in the future. The treatment must not be prolonged unnecessarily and early splenic exposures should be avoided. The length of each exposure should not be more than fifteen minutes, so as to avoid toxic reactions; shorter exposures to be given, if necessary. A rapid and decided drop in the number of leucocytes is most undesirable and is a bad sign.

Specific Immunity and Roentgen Ray Therapeutics.

DR. A. W. CRANE, Kalamazoo, Mich., thought that the Roentgen ray possesses the power of producing some substance in the tissues that has an opsonic power. He found that the opsonic index was higher after irradiation than before. By studying this factor, the author has been able to obtain better results and with fewer treatments or exposures. The ray does not raise the opsonic index after treatments in general, but only in the tissues with which it is brought in contact. The treatment, to be effective, must be given with a ray of sufficient intensity to set free the substance concerned in raising the index. The duration of the exposure and the extent of tissue exposed should be so regulated as to produce a small negative phase or none at all. Repetition of the exposure should be governed by the duration of the negative and positive phases, and in conditions where the disease-producing agent has not yet been discovered, one should be governed by knowledge gained from those cases where opsonic observations can be made. It is not necessary to expose all of the diseased area to effect a cure, and not repeat the treatment more often than twice a week. The least treatment will give maximum results. The author made his observations on cases of acne, lupus and tubercular glands of the neck. When the index falls, a treatment is given.

Goiter.

DR. GEORGE C. JOHNSTON, Pittsburg, Pa., said that the exophthalmic variety of goiter is particularly suitable to Roentgen ray treatment because it produces inhibition of function. Results are fully equal, if not superior to, those obtained by operation. The exophthalmos disappears early; tachycardia disappears more gradually, but is usually progressively less, and the gland itself is reduced in size and restored to normal conditions. The nervous symptoms are always lessened. The author reported one case in which the results were excellent. The cystic goiter is least amenable to roentgenization. Dr. Johnston advises that this method of treatment be tried before operation is resorted to, but insisted that it be continued for a long period of time and that relapses be treated by further radiation. A tube of high penetration must be employed. Postoperative thyroidism is rarely seen where intelligent treatment with the ray is carried out.

DISCUSSION.

DR. KENNON DUNHAM, Cincinnati, reported three cases of exophthalmic goiter in which the ray produced a cure after all other medicinal means of treatment had failed.

DR. CHARLES L. LEONARD, Philadelphia, advised a very careful selection of cases for roentgenization. Cystic goiters usually result in failure; whereas the simple and exophthalmic varieties give excellent results. Certain goiters will not be benefited at all by the Roentgen ray.

DR. GEORGE E. PFAHLER, Philadelphia, agreed with the author that the exophthalmic goiters yield more readily to the treatment than others. The simple goiters are reduced somewhat in size, but do not disappear completely.

Other Papers Read.

The following papers were also read:

"Value of Standard Positions in Roentgenography," by Dr. Percy Brown, Boston; "Physiology of Respiration; Cinematographic Film Demonstration," by Dr. Alban Kohler, Germany; "Roentgen Diagnosis of Bone Tuberculosis," by Dr. S. Cummings, Hamilton, Can.; "Diagnostic Roentgen Tube," by Dr. V. J. Willey, Ann Arbor, Mich.; "Roentgen Ray Unit Demonstrated by a Standardized Meter," by Dr. S. Allen, Cincinnati; "Chromo-stereo-radiograms," by Dr. M. K. Kassabian," Philadelphia; "Histogenesis and Diagnosis of Benign Bone Cysts," by Dr. G. P. Muller, Philadelphia; "Indications and Contraindications for Roentgen Treatment," by Dr. Walther Pick, Vienna.

Medicolegal

Physician Not Entitled to Testify to What Skiagraph Showed —Best Evidence Required.

The Supreme Court of Iowa says that on the trial of the personal injury case of Elzig vs. Bales a physician who assisted in an operation on the plaintiff's leg at the hospital, and testified that the position of the bones of the knee joint was normal, was asked to tell the jury what a skiagraph showed. This was objected to, as not the best evidence, and the trial court ruled that it made no difference from what source the information came, whether from an *x*-ray photograph or otherwise, the physician might testify without telling "the jury what he found on this photograph or on this negative." He was then asked: "Q. In what condition did you find the tissues surrounding the knee joint? Just describe the muscles and everything. A. Do you mean from the skiagraph? Q. Well, any information you may have." Substantially the same objection was overruled, and the physician proceeded to answer, with the understanding that he might state what appeared in a skiagraph. The Supreme Court holds that there was error in permitting the physician to testify to what appeared in the skiagraph. It says that how much of the physician's testimony was based on his own examination of the patient did not appear, nor had the court any means of knowing the portions which were merely descriptive of what the

picture disclosed. The latter was not admissible, because not the best evidence attainable. Photographs are received as either secondary or demonstrative evidence, according to their use. As secondary evidence, the photograph represents the original, whether it be a writing, signature or human face. As demonstrative evidence, they serve to explain or illustrate, and apply the testimony, and are aids to the jury in comprehending the questions in dispute. No argument is required to show that when taken for either purpose they are the best evidence of what appears on them. If the rule adopted by the trial court were to prevail, a physician might testify to the internal conditions of the human body without other information than that afforded by an unauthenticated skiagraph. That x-ray photographs, when properly verified, are admissible in evidence, is fully settled by the authorities. The rule exacting the best evidence applies to the testimony of experts, as well as to that of other witnesses.

Violation of Medical Practice Act by Osteopath—What Is Deemed Use of "Dr." Without Legally Having Received the Medical Degree.

The Supreme Court of New York, Appellate Division, First Department, says that the defendant in the case of People vs. Somme was convicted by the Court of Special Sessions for a violation of Section 153 of the public health laws in that on a named date, in the county of New York, he did unlawfully, without having legally received a medical degree, and without having received a license according to law which constituted at the time an authority to practice medicine under the laws of the state then in force, then and there assume and advertise the title of "Dr." and "M.D." in such a manner as to convey the impression to one Katie Farenga that he, the said Joseph Somme, was then and there a legal practitioner of medicine. Said section provides that: "Any person who shall append the letters M.D. to his or her name (or shall assume or advertise the title of doctor, or any title which shall show or tend to show that the person assuming or advertising the same is a practitioner of any of the branches of medicine), in such a manner as to convey the impression that he or she is a legal practitioner of medicine, or any of its branches without having legally received the medical degree, or without having received a license which constituted at the time an authority to practice medicine under the laws of this state then in force, shall be guilty of a misdemeanor."

The evidence showed, among other things, that there was a sign in the defendant's window, "Dr. Somme, Osteopath," and on the bell, "Dr. J. Somme." The complainant testified that she said to the defendant: "Are you Dr. Somme?" He said, "Yes." She then described her condition to him. The defendant asked some questions, and, in reply to her query, "Can you do anything for me?" said: "'Yes, I can perform an operation.' I said: 'Can not you give me some medicine?' He said: 'No; medicine will do no good.' I told him I was afraid of an operation. He said: 'The only thing for you is a good scientific operation.'" He also handed her his card, which read: "Dr. Somme," etc. On another occasion she saw him again, and after a conversation left $2 on deposit. In the newspapers he advertised: "Dr. J. Somme, Osteopath. Specialist for all chronic difficult diseases. Safe, scientific treatment." It was admitted that the defendant possessed the diploma of a medical school in Indianapolis called the "College of Medicine and Midwifery." He did not produce or offer to produce any other authority for the assumption and use of the title of "Dr." or "M.D."

The essence of the section of the statute under which the defendant was prosecuted was that he should not assume or advertise that title in such a manner as to convey the impression that he was a legal practitioner of medicine. The evidence was sufficient as to the manner of the use. Putting up a sign, advertising as a specialist for all chronic, difficult diseases, discussing symptoms with a proposed patient, advising an operation, and receiving money in part payment in advance therefor were facts establishing an invitation to the public to come to him for medical treatment, and clearly conveyed the impression that he was a legal practitioner of medicine or some of its branches.

But the real question involved was: What do the words "without legally having received the medical degree" mean?

No person is now a legal practitioner in the State of New York unless he comes within one of these three classes: First, those who registered diplomas prior to 1890; second, those who registered licenses since 1890; and, third, a small class who received certificates from the censors of medical societies under chapter 436 of the Laws of 1874—because Section 140 of the public health laws provides that no person shall practice medicine after Sept. 1, 1891, unless previously registered and legally authorized, or unless licensed by the regents and registered as required by this article (Article 8 of the public health law).

This defendant was not within any of the three classes. His claim was that he had a degree of M.D. from an Indiana college. If it be conceded that the college was a legitimate institution with power to grant the degree, yet that degree was worthless as a license to practice medicine in New York, and was worthless as a preliminary requirement to take the regent's examination for a license. By the legislation referred to a medical school diploma conferring the title "M.D." does not serve as a license to practice medicine in New York. Its holder is required to pass the regents' examinations. He can not be admitted to the examination unless he has received the degree from some institution approved by the regents. If he succeeds in the regents' examination, a regents' license is issued, which is the sole authority to practice medicine and which must be registered in the county clerk's office before beginning practice. Therefore, when we consider that the statute prohibits the assumption or advertisement of the title of "Dr." in such a manner as to convey the impression that he or she is a legal practitioner of medicine or any of its branches, without having legally received the medical degree, the words "without having legally received a medical degree" are meaningless unless interpreted as meaning "having received a medical degree such as legally entitled the holder to practice."

It is now the settled policy of the state to hedge admission into the learned professions with strict requirements in order to secure, so far as possible, competent services to patients and clients from physicians and lawyers, and the statutes in regard to admission to the bar, as well as to the practice of medicine, have to some extent, gone hand in hand. Formerly the degree from the law school or the medical school in and of itself entitled the holder to admission to practice. Now in both professions it is merely a preliminary to examination. Neither the lawyer nor the physician coming from another state, or holding a degree of a law or medical school in another state, can hold himself out or advertise in such a manner as to convey the impression that he is a legal practitioner of either profession, unless duly and legally licensed and admitted to practice in New York State under its laws, without being guilty of a misdemeanor.

Therefore, the court thinks that the defendant came within the spirit and the letter of the statute, and that the judgment of conviction was proper.

In a dissenting opinion Justice Ingraham says, among other things, that the construction given to Section 153 by the prevailing opinion treats the words "without having legally received the medical degree" as synonymous with the second clause, so that under this construction any foreign physician coming to New York State and appending to his name the letters "M.D.," unless he had received a license which authorized him to practice medicine in New York State, would be guilty of a misdemeanor, a construction which seems to Justice Ingraham to be at variance with the express intention of the legislature. As he reads the section, the prohibition against a person assuming or advertising the title of "Dr." in such a manner as to convey the impression that he or she is a legal practitioner of medicine only applies where the person has not legally received the medical degree, or has not received a license which constituted at the time an authority to practice medicine under the laws of the state. A person who has legally received a medical degree is not prohibited from calling himself a physician because he has not also been authorized to practice medicine.

Current Medical Literature

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Boston Medical and Surgical Journal, Boston.

Oct. 10, 1907.

1 *Need of Popular Lectures on Insanity. H. R. Stedman, Brookline, Mass.
2 *Heredity in Diseases of the Nervous System, Especially Epilepsy. P. C. Knapp, Boston.
3 Henrik Kellgren and His Methods of Manual Treatment. E. F. Cyriax, London, England.
4 Justifiable Homicide. C. G. Cumston, Boston.
5 Recent Progress in Ophthalmology. M. Standish and W. D. Hall, Boston.

1. **Insanity.**—Stedman says that more mistaken notions prevail about insanity and the insane among people generally, unthinking and educated alike, than is the case in any other department of medicine. As reasons for this ignorance he cites the fact that the mass of insane patients are necessarily cared for at hospitals a long way from home, so that secrecy and mystery seem to shroud the disease. The public does not realize the signs of approaching insanity, nor does it believe that many cures are possible, and those more frequent and rapid if the patient is placed under early treatment. To meet this condition, he urges the institution of courses of lectures for the public on the subject of insanity. As subjects for the more educated classes, he suggests hereditary conditions influencing insanity, mental hygiene, and the criminal aspects of insanity. For the public at large, the true nature of insanity, the reliable signs of approaching insanity, the manageable causes of insanity, alcoholism and insanity, and the care and treatment of an insane patient in a state hospital from admission to discharge. The manner of presentation, however, is as important as the subject. While the possibilities of harm should not be understated, they must not, as is the present tendency, be exaggerated to the extent of creating unnecessary and unhealthy alarm. Theories should be discarded, and only actual, ascertained facts which have a definite, practical bearing be dealt with. The qualifications for a popular medical lecturer are, according to President Eliot of Harvard, the power of interesting description, telling exposition, and moving exhortation.

2. **Heredity.**—Knapp, after critically considering at some length the whole doctrine of heredity and its various modern modifications, concludes that the old data on which the present doctrine of neuropathic heredity is based are misleading, and that a much more thorough investigation of the whole question is required before we can draw trustworthy conclusions. Each individual cause must be studied by itself, with due regard to the frequency of the disease in the ascendants, especially in the direct line. Such disease in the collaterals seems to be of slight importance. The nature of each case must be carefully considered, especially with reference to the injury to the germ plasma. The frequency of disease in the ascendants needs to be compared with the frequency of disease in the ascendants of healthy persons, and finally, all possible causes of disease in the individual himself must be considered, and especial attention must be paid to the whole life history of the patient, to determine how far a defective organization is at fault, and how far other influences, such as accidents, of parturition, faulty training, bad examples, injury, infection and intoxications have led to the development of the disease. Only by such study can we determine accurately the influence that heredity exerts. The present too pessimistic doctrines exert considerable influence on marriage and procreation, and threaten ill-considered legislation. Further investigation will often permit us to be more reassuring to the individual.

Medical Record, New York.

Oct. 12, 1907.

6 *The Specific Action of Radium as a Unique Force in Therapeutics. R. Abbe, New York.
7 *Practical Venereal Prophylaxis. D. Lewis, Chicago.
8 *Septal Perforations: Their Closure by Plastic Operation. C. Jackson, M.D., Pittsburg, Pa.
9 *Syphilis and Massage. R. W. Taylor, New York.
10 Presence of Vaccine Virus of Bacilli and Spores Resembling Those of Tetanus. R. N. Willson, Philadelphia.
11 *Management of Third Stage of Labor. J. W. Winston, Norfolk, Va.

6. Abstracted in The Journal, Oct. 5, 1907, p. 1215.

7. Abstracted in The Journal, June 22, 1907, p. 2151.

8. **Septal Perforations.**—Jackson describes an operation for closing small perforations of the septum by means of a large round flap taken from the mucosa and submucosa over the inferior turbinal. The flap is raised and, after freshening the edges of the perforation, is stitched in place. If the perforation is larger it is well to duplicate it on the other side. The synechia resulting from the union of the flap with the septum is easily removed by clipping out a section of the bridge formed by the flap and inserting a strip of bismuth lint for five days. The operation can be used on cicatricial septa, and where the cartilage has been removed by submucosal operation.

9. Abstracted in The Journal, Oct. 12, 1907, p. 1306.

11. **The Third Stage of Labor.**—Winston disagrees with the common impression that the third stage of labor is the least important. Its improper management often leads to untold trouble. He discusses at length the question of the removal of the placenta, which when once loose from its attachment becomes a foreign body, and should be removed with its membranes as soon as possible. The physician should be able to tell when it has separated and where it is located after the separation. After expulsion of the placenta the uterus should be watched, and if it is relaxed, but not otherwise, it should be kneaded over its whole surface for an hour. Tears should be repaired at once. Hemorrhage requires prompt attention. Winston considers the postpartum douche under ordinary circumstances unnecessary. Ergot, though convenient, has serious disadvantages. It should never be used when eclamptic signs are present. It is a safeguard against hemorrhage in high placenta and also against the entrance of infective material into the circulation. An objection is that it does not cause the whole uterus to contract alike, with the result that occasionally it produces a bending. He discarded the abdominal binder in his last fifty cases and states that it does not add in any way to the comfort of the patient otherwise than by easing her mind, while according to Williams it is responsible for many displacements and versions. After the patient begins to walk around, the pelvic or muslin support helps to preserve the form, and is, moreover, a convenient way to hold the vulval dressing.

New York Medical Journal, New York.

Oct. 12, 1907.

12 *Different Forms of Hyperchlorhydria: Their Clinical Differentiation and Dietetic Medicinal Treatment. P. Cohnheim, Berlin, Germany.
13 *The Mosetig Batiste. C. P. Noble, Philadelphia.
14 *Varieties of Tuberculosis According to Race and Social Condition. (Continued.) W. Hutchinson, New York.
15 *Malarial Fevers of Cuba. Charles C. Jacobs, New Orleans.
16 *Indications for Mastoid Operation. E. B. Dench, New York
17 *Nephrolithiasis with Vague Symptoms. M. Krotoszyner, San Francisco.
18 *Surgical Complications and Sequelæ of Typhoid Fever Involving the Gall Bladder and Liver. B. A. Thomas, Philadelphia.
19 *Open Method Treatment of Cancer. W. D. Witherbee, Charlotte, N. C.

12. **Hyperchlorhydria.**—Cohnheim says that hyperchlorhydria is not an independent disease, but a symptom of various diseases of the stomach. Hyperchlorhydria is spoken of when the total acidity of the Ewald-Boas test breakfast exceeds 70. The distinction that has always been made between hyperchlorhydria, *i. e.*, the secretion of an excessively acid gastric juice, and hypersecretion, *i. e.*, the secretion of an excessively large amount of normally acid gastric juice, does not seem to be correct. The gastric juice probably has always the same composition and varies in amount. Hyperchlorhydria throughout the entire course of the disease may give rise to no subjective symptoms. Almost all obese persons and heavy smokers have hyperchlorhydria. On the other hand, the so-called hyperacidity symptoms may exist when the gastric juice has a normal or subnormal acidity; whence it follows that hyperchlorhydria *per se* is not the cause of the symptoms, but is itself a symptom of the primary disease. Cohnheim classifies five varieties of hyperchlorhydria: (1) that form occurring in acid gastritis, (2) that in ulcer and stenosis of the pylorus, (3) that due to chronic constipation, (4) that occurring in neurasthenia and hysteria, and (5) that in gastric paralyses.

He discusses the symptomatology, diagnosis, and treatment, mainly, of course, dietetic, in each case, and sums up by stating that in the organic form pains exist (gastritis, ulcer, stenosis); in the functional only pressure and fulness (neurasthenia, constipation). The proper treatment of the various forms varies as widely as the etiologic factors. It is, therefore, absurd, he declares, for certain authors to recommend, for instance, a meat diet, and others a vegetarian diet. One must direct the entire treatment as well as the diet to the primary disease, for instance, in hyperchlorhydria following ulcer, semiliquid foods are indicated; on the other hand, hyperchlorhydria following habitual constipation should be treated by a coarse diet, etc. Only by strict individualization can one produce a cure and obtain permanent results.

13. **Mosetig Batiste.**—Noble eulogizes the improved Mosetig batiste as a substitute for rubber dam and heavy rubber cloth, in surgery. It withstands sterilization in the pressure sterilizer for at least 10 sterilizations. It is odorless, and flexible. It forms a good substitute for the rubber apron, a cloth around the neck of vomiting patients, to assist in shutting of the peritoneal cavity, etc.

14. **Tuberculosis Classified by Race.**—Hutchinson concludes his inquiry, begun in the preceding issue, and sums up his conclusions practically as follows:

First. Races during the process of citification acquire an appreciable degree of immunity to, or increased resistance against tuberculosis.

Second. Classes and social status of the same race appear to acquire varying degrees of a similar immunity.

Third. Such race and class acquirements when present in our patients may be of real value in estimating probable resisting power and making a prognosis.

Fourth. In the fight against tuberculosis we have at least one of the great forces of Nature on our side, and the remarkable ascent represented by the contrast between a tuberculous death rate of 2,488 per 100,000 in the Sioux Indians and one of 71.8 per 100,000 in the Polish Jews is a most encouraging indication of the extent to which we may hope to raise the resisting power of the race in future.

15. **Malarial Fevers of Cuba.**—Jacobs, as the result of a careful study of malaria in Cuba, concludes that: The mosquito (genus *anopheles*) is the only means of transmission of the disease. The anopheles does not breed in artificial receptacles (buckets, tubs, etc.) habitually, and it will disappear from localities where the natural breeding places are destroyed. The negro is less liable to the disease than the white. The hemoglobinuric form of malaria is due to toxins produced by continued presence and large number of plasmodia, because not one case is noted in which the patient had not suffered from several previous malarial attacks. (Plasmodia have been demonstrated in but few cases; tending to give rise to the belief that the plasmodia themselves are destroyed by the virulence of the toxin. No new form of plasmodium has as yet been found that could be considered as specially producing this type of fever.) All cases not coming under treatment during the first twelve hours are invariably fatal. The treatment giving best results is prompt use of quinin, hypodermically, in large doses and purgation with calomel, quinin to be repeated at intervals of from (if hemoglobinuria persists) six to twelve hours until the urine is normal. In the general prophylaxis he emphasizes the importance of destroying the breeding places of mosquitoes, and of isolating patients by screening, and absolute care of all persons infected. This is impossible in the present state of sanitary laws, as the blood of persons living in malarial districts would have to be examined for plasmodia, but a great reduction can be made by putting all known patients under mosquito bars, and by requiring all persons in malarial districts to sleep under mosquito bars. In the summer of 1900 the malarial cases in the Military Hospital at Matanzas averaged nearly 50 per cent. of total sick. An order was issued compelling all troops to sleep under mosquito bars at all times, and at the same time general destruction, as near as possible, of mosquito-breeding places took place, with the remarkable result that in a month's time the malarial cases dropped down from 3 to 5 per cent. of the amount of total sick; and this in the middle of the rainy season. He closes with case reports.

16. **Mastoid Operation.**—Dench considers the subject from the point of view of the general practitioner and general surgeon, leaving the otologist out of the question. He discusses the symptomatology, thoroughly. Edema over the mastoid is more generally characteristic of a furuncle of the posterior walls of the canal. A fluctuating swelling indicates a spontaneous evacuation of suppuration within the mastoid cells. Sometimes, in place of mastoid swellings, there may be tumefaction, either hard and brawny or fluctuating, over the posterior root of the zygoma. In three or four instances, Dench has found this the only sign prior to operation. For the last four or five years he has found tenderness over the mastoid tip present in almost every case of acute middle-ear inflammation; it is often severe at first, but in uncomplicated cases, it usually disappears after two or three days. Tenderness over the mastoid antrum is much more significant of involvement of the mastoid; it should always be regarded with suspicion, but if the ear has been freely drained by incision, the presence of tenderness alone does not indicate operation during the first twenty-four or forty-eight hours—in the absence of spontaneous pain and septic temperature. Continuance or recurrence of mastoid tenderness indicates involvement of the mastoid. The temperature is very deceptive. Dench has seen a temperature normal throughout in a case in which the mastoid was found entirely disintegrated and the cells filled with pus and granulation tissue. He thinks the value of the blood count as a means of determining the necessity of operation in doubtful cases has been much overestimated. In the records of 24 recent cases in which the patients presented acute symptoms, a simple mastoid operation was done in 17 cases and a radical operation in 6; the suppuration in one case involved the cranial cavity and led to an epidural abscess. A study of the blood count in these cases showed that increase in the polymorphonuclear count does not occur in cases of acute otitis media with mastoid involvement with sufficient frequency to make it valuable as a diagnostic measure. The polymorphonuclear percentage almost invariably rises, however, in involvements of glandular or intracranial structures or of the viscera; so that in a case of doubtful mastoiditis with high polymorphonuclear percentage Dench suspects some visceral complication, e. g., pneumonia. The bacteriologic examination of the middle-ear discharge seems to show that mastoid complications are not apt to occur with no infection or only a staphylococcus one. This is not an invariable rule, however, Early incision of the drum and free drainage from the middle ear in the early stage of middle-ear inflammation will frequently suffice to effect a complete cure. Mastoid symptoms are occasionally so extremely obscure that mastoid involvement may take place and avoid discovery until late in the disease.

17. **Nephrolithiasis.**—Krotoszyner says that every one of the many objective or subjective symptoms of nephrolithiasis described in text-books, if considered alone for itself, and not corroborated by other evidence, may lead to diagnostic errors. Only direct palpation of one or more calculi in the kidney or urethra, or a distinct and characteristic shadow on a radiographic plate, gives direct evidence of concretion in the upper urinary tract. The former symptom is obviously rare, so that it is advisable to use the latter method in every suspected case, though only as an auxiliary or corroborative measure.

18. **Biliary Complications of Typhoid.**—Thomas reviews from the literature 134 cases of cholecystitis in typhoid. He classifies cholecystitis into (1) non-perforative cholecystitis or empyema or both, with or without cholelithiasis; and (2) the more important lesion, the perforative cholecystitis. From the statistics of these collected cases, it is plain that the prognosis varies with the duration of the interval elapsing between the onset of the accident and the time of operation; that the perforation in those cases in which its location was stated occurred most frequently near the cystic duct; that only 5 of the 11 patients recovered; that females were affected about twice as often as males; that it occurred irrespective of age; that the *Bacillus typhosus* was isolated in about 50 per cent. of the cases; and that calculi were found in only 3 of the 11 cases, or 27.27 per cent. In a series of 8,895 cases of typhoid fever, cholecystitis occurred in only 12 or 13 per cent. In 4 of these 12 operation was necessary. Calculi were found in 3, and the *Bacillus typhosus* in all 4. The author considers the symptoms, diagnosis and prognosis, and indications for and

against operation and the relative frequency of typhoid infections of the gall bladder. The colon bacillus is probably the organism most active in producing the so-called typhoid liver abscesses. He discusses the symptomatology, diagnosis and treatment of typhoid or hepatic abscesses.

19. The essential points in this article were covered in an article by the same author which appeared in THE JOURNAL, June 22, 1907.

The Lancet-Clinic, Cincinnati.

Oct. 12, 1907.

20 *Causes and Locations of Abdominal Pain; their Clinical Significance with Special Reference to McBurney's Point. F. L. Rattermann, Cincinnati.
21 *Random Thoughts on the Pupil in Health and Disease. A. N. Ellis, Maysville, Ky.
22 *An Unusual Case of Syphilis. F. Siegel, Cincinnati.

20. **Abdominal Pain.**—Rattermann summarizes his paper as follows:

1. Every pain in the region of the appendix need not necessarily refer to organic disease in this region or in any other abdominal organ. The sensibility in the skin and in the muscles around the appendix can be due to the irritation in the peripheral filaments of the eleventh and twelfth intercostal nerves awakened by either a functional disease or by a constitutional or blood dyscrasia. The pain on palpation over McBurney's point can be the result of the irritation of the ileocolic plexus, a branch of the great solar. These contingencies must be taken in conjunction with other abnormal findings on palpation before arriving at any conclusion.
2. The same test must be made over the gall bladder, remembering at the same time that filaments of the sympathetic join the eleventh and twelfth intercostal nerves on the right side. Furthermore, that the sympathetic nerve chain, beginning with these filaments in the cystic plexus surrounding and supplying the gall bladder, join with the hepatic plexus and enter the solar system. From the solar system, filaments continue their way through the superior mesenteric to the ileocolic. At any point, but preferably at certain points along this sympathetic system, like the epigastrium and umbilicus, pain can be reflected. Hence the importance of remembering these anatomic facts and weighing them carefully on the scale with all the other evidence before reaching a conclusion.
3. Tenderness over McBurney's point *per se*, without any other physical evidence, points not to disease of the appendix, but only to a hyperesthesia, which might be due to any of the reasons above given, the reverse holding true in pain over the gall bladder.
4. Our only positive evidence of disease of gall bladder or appendix is the hardness, or the infiltration of the tissues, or tumor like formation of the body or the parts immediately contiguous to the diseased organ.
5. In operations for appendicitis, the gall bladder should be examined, as a matter of course, in patients beyond 25 years of age; while in operations on the gall bladder the appendix should always, if possible, be inspected.

21. **The Pupil.**—Ellis says that there is no physiologic size of the pupil, but that it varies in different people, being smaller in elderly people and those with blue irides, than in younger ones and those with dark irides. Congenital inequality must not be forgotten, when thinking of unilateral lesions of the brain or general paralysis of the insane. Dilatation is noted in glaucoma, typhoid, on return to consciousness from epileptic fit; contraction, usually in uremic poisoning, low and continued fevers, during the coma of epilepsy and alcohol, and in tobacco amblyopia; also at first during cerebral apoplexy, distinguishing it from embolism in which the pupil is unaffected. Of spinal conditions, irritative lesions of the cord may be attended with dilatation, while destructive lesions may produce contraction. The eye symptoms of progressive locomotor ataxia we find to be (1) temporary paralysis of the palpebra, (2) loss of light reflex, (3) extreme contractions, (4) inequality, (5) optic nerve atrophy with its results. Finally he considers an emergency case of insensibility and discusses the collateral symptoms in cerebral hemorrhage, apoplectic fits, opium poisoning, drunkenness and uremic coma.

22. **Unusual Case of Syphilis.**—Siegel describes the case of a washerwoman who apparently contracted syphilis through a primary sore on her finger, infected presumably in her washing, as there was a syphilitic in the family for which she washed.

Interstate Medical Journal, St. Louis.

September.

23 *Abdominal Surgery Without Detached Pads or Sponges. H. S. Crossen, St. Louis.
24 *Alimentary Intoxication (Saunders' Disease). J. Zahorsky, St. Louis.
25 Medieval Medical Education. J. J. Walsh, New York.

23. **Sponges in Abdominal Surgery.**—The method of avoiding the inclusion of instruments, and particularly pads, in the abdomen in laparotomy is the object of Crossen's paper. Instruments are all long, so that a portion is always out of the abdominal cavity, and if by accident one should fall entirely within it, it is inevitably felt at the final palpation. The large roll of gauze has been adopted in place of large gauze pads. As regards the small pads, Crossen has devised the following plan: He uses a piece of gauze 10 yards long and half a yard wide, folded lengthwise to make six thicknesses. The folded strip is approximately three inches wide and ten yards long, with the raw edges turned in and the ends tacked with thread to keep it from unfolding. Each of these strips is enclosed in a bag five inches wide and ten inches deep, made of extra heavy material, so that there is no chance of ravelling. Beginning with one end, the gauze is packed firmly into the bag. When all the strip has been packed in, the bag is folded over and a safety pin attached to the bottom. Four filled bags are wrapped together and sterilized. At the operation the lower end of a bag is pinned to the sterile sheet on each side of the abdomen, the end of the gauze strip being pulled out as needed for sponging by fingers or forceps. As fresh portions of the strip are drawn out for use, the soiled portions are not cut off but simply dropped down beside the bag and off the table so that the greater part of the strip is always outside the abdomen.

24. **Saunders' Disease.**—After admitting the existence of true infections, Zahorsky asks: "May there not be nutritive disorders that depend on the improper composition of the food? Clinicians will promptly answer in the affirmative. But when we ask whether or not certain foods of improper composition may induce a general intoxication from vicious metabolism which is expressed in symptomatic phenomena resembling a bacterial infection, they are disposed to doubt the possibility." He then details the clinical syndrome described in 1896 by E. W. Saunders, consisting of symptoms pointing unmistakably to cerebral inanition, and commonly ending fatally, which Zahorsky christens "Saunders' disease." He describes it as follows: It is a fatal or at least a dangerous illness, characterized by vomiting, severe cerebral symptoms and profound depression of the circulation, and occurs in an infant having digestive disturbances to whom is given a relatively large percentage of carbohydrates. While some proprietary food having an improper composition is most commonly the direct cause, the condition may occur as a result of direct feeding with an irrational milk mixture. He then passes to a consideration of Finkelstein's recent publications (*Jahrb. f. Kindhlk.*, January and March, 1907,) who concludes that there is an acute nutritive disturbance in infants due to disordered metabolism and not to exogenic infection, as is commonly taught. In this disease the symptoms of a general intoxication predominate, while the phenomena of collapse and rapid loss in weight point to a profound nutritive disturbance. All the following symptoms must be present to establish a diagnosis: (1) Impairment of consciousness; (2) a singular change in the type of respiration; (3) alimentary glycosuria; (4) fever; (5) collapse; (6) diarrhea; (7) albuminuria and cylindruria; (8) loss of weight, and (9) leucocytosis. Finkelstein declares that this syndrome is in some way etiologically related to the metabolism of the carbohydrates. The disorder is most likely to occur in infants who are given an excess of sugar. An excess of carbohydrates causes these symptoms to develop, and Finkelstein regards the trouble rather as an intoxication by some unknown intermediary metabolic product. Zahorsky asks: "Is Saunders' disease the same as Finkelstein's?" In the absence of a complete symptomatology of the former the comparison can not be accurately made, but he is inclined to view Saunders' disease as a very severe type of alimentary intoxication in the sense of Finkelstein's. It occurs most commonly in acute indigestion and gastroenteric infections, during chronic disorders of infantile atrophy, and in the severe infectious diseases. Sugar, and especially milk sugar, is by no means a harmless ingredient of the food, as is generally assumed. He then cites the researches of Howland and Richards (*Arch. of Ped.*, June, 1907) that the ordinary products of proteid putrefaction (indol, skatol, etc.) require oxidation before being excreted by the kidneys. It is noteworthy that the symptoms given by dogs poisoned with indol resemble in every particular those of Saunders' disease, which, in its

wider application, Zahorsky holds to be the alimentary intoxication of Finkelstein. Indol, however, is probably only one of the intoxicating agents. The rôle of sugar is suggested by the consideration that one substance depends on another for proper katabolism—the proteid oxidation. The disease improves when the formation of indol in the intestinal canal diminishes, or when normal toxin action is restored. Much clinical and experimental work on this complex condition is necessary, however, before the hypothesis can be accepted.

Journal Experimental Medicine, 1907, LX, No. 5, New York.

September 21.

26 *Effect of Certain Surgical Antiseptics and Therapeutic Agents on Phagocytosis. I. Carbolic Acid, Mercuric Chlorid, Boric Acid, Quinin Hydrochlorid. W. H. Manwaring and H. O. Ruh, Indianapolis, Ind.
27 *A Further Contribution to the Knowledge of the Opsonins. C. E. Simon, Baltimore, Md.
28 *Opsonins of Inflammatory Exudates. E. L. Opie.
29 *Experimental Liver Necrosis: I. The Hexon Bases. H. C. Jackson and R. M. Pearce, Albany, N. Y.
30 *Id.: II. Enzymes. R. M. Pearce and H. C. Jackson, Albany, N. Y.
31 *Id.: III. Nitrogenous Metabolism. R. M. Pearce and H. C. Jackson, Albany, N. Y.
32 *Id.: IV. Nuclein Metabolism. H. C. Jackson and R. M. Pearce, Albany, N. Y.
33 *Id.: V. The Fats and Lipoids. H. C. Jackson and R. M. Pearce, Albnay, N. Y.
34 *Biologic Relationships of Diplococcus Intracellularis and Gonococcus. M. Wollstein, New York City.
35 Influence of Organ Extracts of Cold-Blooded Animals on the Blood Pressure. D. R. Joseph.

26. **Effects of Antiseptics and Therapeutic Agents on Phagocytosis.**—Manwaring and Ruh find that carbolic acid, mercuric chlorid, boric acid and quinin hydrochlorid materially influence the degree of phagocytosis in the test tube; a concentration of .22 per cent. of carbolic acid causes a falling off of phagocytosis by one-third; and 0.5 per cent. completely suspends phagocytosis. Mercuric chlorid in concentrations of more than 0.008 per cent. causes depression and in greater quantities complete suspension. A concentration of 2 per cent. boric acid completely suspends phagocytosis. Quinin hydrochlorid added in increasing amounts causes first an increase in phagocytosis; in larger amounts than 0.008 per cent. there is complete suppression of phagocytosis.

27. **Opsonins.**—Simon criticises Wright's method of determining the opsonic content of the blood and maintains that the most reliable method is to determine the percentage of phagocyting leucocytes in progressive dilutions up to the point of opsonic extinction. He holds that the opsonins of normal blood serum are not specific, but that the opsonins in immune sera probably are specific.

28. **Opsonins of Inflammatory Exudates.**—Opie finds that inflammatory exudates commonly are devoid of opsonins, even when produced by sterile irritants. He suggests that probably the normal opsonins are absorbed not only by micro-organisms, but also by cells in the exudate.

29 to 33. **Experimental Liver Necrosis.**—These papers give the results of chemical analyses of liver tissue and materials in experimental necrosis of the liver produced by the injection of hemotoxic sera; that is to say, sera which agglutinate and dissolve blood corpuscles. Among many other interesting results may be mentioned the fact that in focal and diffused necrosis of the liver produced in this way, there occurs an increased elimination of total nitrogen with a correspondingly increased output of urea. In degeneration without necrosis, there is only a slight increased output of total nitrogen, so that here there is simply a disappearance of the urea-forming function of the cell. As a consequence of autolysis of necrotic liver tissue, there is increased excretion of uric acid, purin bases, and inorganic phosphorus pentoxid due to hydrolysis of nuclear material.

34. **Biologic Relationships of Diplococcus Intracellularis and Gonococcus.**—Wollstein finds that the gonococcus and the diplococcus of meningitis differ most markedly in cultural characteristics, but that the agglutinins and other properties that develop in the sera of immunized animals are largely common to both these organisms. Both lose all pathogenic power equally when cultivated artificially, and, in the case of young guinea-pigs, larger doses are required to kill with gonococci than with diplococci.

California State Journal, San Francisco.

September.

36 Theophyllin as a Diuretic. A. W. Hewlett, San Francisco.
37 *Grocco's Sign. J. B. Frankenheimer, San Francisco.
38 Physiology of Glycosuria. M. H. Fischer, Oakland, Cal.
39 *Necessity of Watching the Heart in Diabetes. C. M. Richter, San Francisco.

37. **Grocco's Sign.**—Frankenheimer summarizes his paper practically as follows:

1. Grocco's triangle was present in every one of the series of 26 cases of fluid in the pleura and absent in every control case.
2. The apex of the triangle is below the line of dulness and usually at, or slightly above, the line of flatness.
3. The base of the triangle may vary from 2 to 8 centimeters; in this series the extremes were 3 and 7 centimeters.
4. Slight convexity of the hypoteneuse of the triangle which usually occurs above its middle, was noted in several cases; it is apparently found more frequently in the larger effusions. (This is due more to the displacement of the mediastinal structures than to the deadening influence of fluid in the vertebral vibrations.)
5. Fluid in the right pleura causes a larger triangle than in the left—other things being equal.
6. The size of the triangle varies as the amount of fluid. This is shown by the daily variations in the height of the dulness, or by the removal of a portion of the fluid.
7. Only small quantities of fluid are necessary to cause the triangle when the lower lobe of the lung is consolidated.
8. Vocal fremitus is diminished or absent, and breath sounds distant over the triangular area. These signs in themselves will sometimes enable one to delimit the triangle.
9. Egophony, when sought for, was heard over the triangle with more or less intensity in nearly all the cases of larger effusions, the larger the effusion the more intense the egophony. Unfortunately, the coin test was not made.
10. The disappearance of the triangle when the patient lies on the affected side, occurred in almost every case examined for this particular sign. The time of disappearance varies as the amount of fluid present; the smaller the amount, the quicker the resonant note returns.
11. The non-disappearance of a well-marked triangle when the patient lies on the affected side, is due, either to an immense amount of fluid, or the effusion may be encapsulated, or there is a small amount of fluid present on the apparently unaffected side which collects in the pleura next the vertebral column.
12. The triangle is of greater value in diagnosis when vocal fremitus is present on the affected side.

39. **Heart in Diabetes.**—Richter says that acute dilatation of the heart of a diabetic, appearing with other signs of heart insufficiency, generally forestalls or accompanies an aggravation of the disease. It has been his experience, that, coming to the rescue of this insufficiency of the heart by proper medication and proper hygienic measures, it is possible and often easy to reduce the amount of sugar in the urine and in some instances this has proved as life saving to the patient as the treatment of the beginning of coma by large doses of sodium bicarbonate.

Mississippi Medical Monthly, Vicksburg, Miss.

October.

40 *Beriberi. H. S. Capps, Gulfport, Miss.
41 Trypsin Treatment of Cancer. L. B. Hudson, Hattiesburg, Miss.

40. **Beriberi.**—Capps discusses the nature of beriberi and describes the stringent regulations of the Norwegian government in regard to sailing vessels. He gives three prescriptions used, respectively, by the English government at St. Helena, in the Hospitals of Bahia in Eastern Brazil and in the hospitals of Buenos Aires. An iron salt and digitalis or strophanthus appear to be the essential ingredients, combined with one or more of the following: Potassium citrate or acetate, citric acid, spirit of nitrous ether, magnesium sulphate. In acute cases Capps prefers to use free purgatives, consisting of calomel and salines, and the salicylates; probably also strychnin, strophanthus or digitalis, whenever these are indicated, and orders the proper diet. In the subacute and chronic cases he has found the following treatment very satisfactory: As soon as the diagnosis is made, he gives the patient a calomel purge, which is to be followed with a saline every morning until the bowels are thoroughly cleansed. This will aid in eliminating the toxins, and also arouse the secretions, which are always more or less stagnated. He then puts the patient on a nutritious diet, rich in nitrogen, and specifies plenty of fresh milk, plenty of fresh eggs, plenty of fresh meat and some fresh vegetables. The elixir of iron, quinin and strychnin has proved very useful in his hands. If there is much atrophy, he prefers to give strychnin nitrate hypodermically, for a few days, in the atrophic parts, and then to follow it with strychnin internally. Besides its effect on the heart and circulation, he believes that strychnin has some influence on the degenerated

muscles and nerves. In more obstinate cases he is in the habit of adding warm baths, or ordering hot and cold douches, and applying massage and electricity. He reports a case of a Norwegian sailor in a grave state of the disease treated by him in this fashion, who was discharged cured after four weeks in hospital.

New York State Journal of Medicine, New York, N. Y.

September.

42 *Acute Suppurative Inflammation of the Thoracic Duct. H. P. DeForest, New York.
43 *Practical Suggestions Essential to Radical Cure of Herniæ. I. S. Haynes, New York.
44 Clinical Features and Operative Treatment of Thyroid Lesions. G. E. Beilby, Albany, N. Y.
45 Typhoid Fever with Report of Case. W. S. Hubbard, Brooklyn, N. Y.
46 The Refracting Optician as an Unlicensed Practitioner of Medicine. G. E. Blackham, Dunkirk, N. Y.
47 History of the Medical Society of the State of New York (Continued.) J. J. Walsh, New York.

42.—Abstracted in THE JOURNAL, Feb. 25, 1907, p. 721.

43. **Radical Cure of Hernia.**—Haynes asserts that the value of the essential features of any operation for the radical cure of hernia rests on the fundamental principle of the restoration or reconstruction of the parts after the normal plan. He details what he considers the normal plan in regard to inguinal, femoral, umbilical and postoperative hernias.

Denver Medical Times and Utah Medical Journal, Denver.

September.

48 Case of Double Uterus; Removal. J. M. Perkins, Denver.
49 Smallpox and Vaccination. W. C. K. Berlin, Denver.
50 Two Cases of Carbon Monoxid Poisoning. H. Reeve Johnson, Denver.
51 The Medical Law and Its Violation. J. D. Crisp, Denver.
52 Three Cases of Goiter. M. E. Bates, Denver.
53 Laboratory Diagnosis for the Practitioner. (Continued.) J. C. Todd, Denver.
54 *Effect of Altitude in the Production and Treatment of Endocarditis. C. F. Osgood, Ogden, Utah.

54. **Altitude and Endocarditis.**—Osgood arrives at the conclusion that inasmuch as high altitude tends to accelerate the heart action of acute venous stasis, it is probably an active etiologic factor in the production of heart lesions. All the infectious diseases, especially in childhood, should be carefully watched for the earliest symptoms of cardiac failure, and any patients showing such symptoms should be promptly placed in the lowest altitude practicable.

Kentucky Medical Journal, Bowling Green.

September.

55 Spiritus Glycerylis Nitratis. (U. S. P.) Spiritus Glonoini. Spirit of Nitroglycerin. V. E. Simpson, Louisville.
56 Conduct of Labor. Edward Speidel, Louisville.
57 *Primary Malignant Diseases of the Spleen. G. A. Hendon, Louisville.
58 Arteriosclerosis and the Importance of an Early Diagnosis and Treatment. J. T. Green, Leitchfield.
59 Operation for Artificial Pupil. A. H. Edwards, Hopkinsville.
60 Forceps Delivery. D. O. Hancock, Henderson.
61 Anatomy and Surgery of Colles' Fracture. R. C. Falconer, Lexington.
62 Enuresis. H. T. Brown, Ironton, Ohio.
63 Surgery of the Pancreas. J. R. Wathen, Louisville.
64 *Relations of Heredity and Early Environments to Diseases and Defects of Children. V. Blythe, Paducah.
65 The Spirochæta of Schaudinn and Syphilis. I. Lindenberger, Louisville.
66 The Malaria Bug. W. H. McCracken, Bowling Green.
67 Case of Carcinoma of the Intestine. A. P. Dowden, Eminence.
68 Pertussis. L. F. Hammonds, Liberty.

57. **Primary Malignant Disease of the Spleen.**—Hendon reports a case of this rare condition.

64. **Heredity.**—Blythe discusses heredity in relation to diseases and defects especially of children, and concludes that while, on the one hand, heredity undoubtedly plays a powerful part, in the diseases and defects of humanity, it is often used as a blind excuse for disobedience to laws of Nature. Many people, he asserts, become morbid by allowing themselves early in life to imagine that they are peculiar and different from others.

The Virginia Semi-Medical Monthly, Richmond, Va.

Sept. 27, 1907.

69 *Prevention of Ophthalmia of Infancy from the Standpoint of Ophthalmologists. L. Howe, Buffalo, N. Y.
70 Crank, Megalomaniac, Morphinomaniac, Dotard, Criminal and Insane Physicians. G. M. Gould, Philadelphia.
71 Administration of Chloroform. R. T. Ferguson, Norfolk.
72 Climate of Custer County, Neb. W. R. Young, Ansley.
73 Early Diagnosis and Treatment of Bronchopneumonia in Infants and Children. S. H. Burton, Pamassus.
74 Reduction of the Lip of Undue Length and the Correction of Eversion. C. C. Miller, Chicago.
75 Principles of Surgery. S. McGuire, Richmond.

69. **Prevention of Infantile Ophthalmia.**—Howe emphasizes the propriety of the routine application of a 2 per cent. solution of silver nitrate in the case of all infants in which one or both eyes become inflamed, swollen or reddened, at any time within two weeks after birth.

Maryland Medical Journal, Baltimore.

September.

76 Duty of the Public Toward the Trained Nurse. W. R. Stokes, Baltimore.
77 Case of Adams-Stokes Disease. T. F. Leitz.

The Journal of the Kansas Medical Society, Kansas City.

September.

78 Surgery of the Ethmoidal Sinus. J. F. Sawtell, Kansas City.
79 The Present and Comparative State Physically of the American People. R. A. Light, Chanute.
80 The Early Treatment of Insanity. S. S. Glasscock, Kansas City, Mo.
81 Hepatic Abscess. T. E. Schwarz, Clay Center.

Vermont Medical Monthly, Burlington.

Sept. 16, 1907.

82 *Medical Department of the University of Vermont.

82.—This issue is devoted to editorial articles on the history of the Medical Department of the University of Vermont, and of the new College of Medicine, and its hospital and clinical facilities.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

September 28.

1 Instruction of Midwives in the Symptoms and Signs of Abnormal Labor. P. Horrocks.
2 Acute Streptococcal Septicemia Occurring at the Menstrual Period. W. E. C. Dickson.
3 *Factors which Contribute to Success in Abdominal Operations. J. H. Dauber.
4 Primary Epithelioma of Vagina, Showing Autoinoculation. A. J. Wilson.
5 *Progress in Treatment of Mental Diseases. T. C. Shaw.
6 *Alcohol and Insanity. F. W. Mott.
7 Three Cases of Periodic Dementia. C. A. Mercier.
8 *The Galvanometer as a Measure of Emotions. F. Peterson.
9 Presence of a Bacillus in the Blood of Persons Suffering from General Paralysis of the Insane. G. M. Robertson.
10 Diphtheroid Organisms and General Paralysis of Insane. J. P. Candler.
11 Hypnotism. J. F. Woods.
12 *Teaching of Psychology in Medical Schools. A. T. Schofield.
13 *Prolapse of the Rectum in Children. P. L. Mummery.
14 *Retropharyngeal Abscess. H. I. Pinches.
15 Purpura of Children. H. R. Dean.
16 Acetonemic Conditions of Children. F. Langmead.
17 Interscapulo-thoracic Amputation. E. M. Corner.
18 Cases in which Meckel's Diverticulum was Present. H. T. Gray.
19 Operation for Embolus. B. G. A. Moynihan.
20 Rheumatoid Arthritis. J. W. Martin.

3. **Factors of Success in Abdominal Operations.**—Dauber insists on the importance of many points to which insufficient attention is commonly paid as factors of success in abdominal operations. Oral asepsis should be attended to, for carious teeth and purulent gums often produce toxemic symptoms, not the least of which are parotiditis and parotid abscess. In the preparation of the skin area, the compresses are not always large enough. Patients should not be kept too long in hospital before operations; their courage leaves them and the tension becomes insupportable. Patients are often subjected to too cold an atmosphere before entering the operating room. Great stress, of course, is laid by Dauber on the details of asepsis, but two other points are also of great importance, lightness of touch and gentleness, and rapidity in operating, for the author considers every minute of as much value now as in the days before anesthesia. He deprecates too many assistants as possible sources of infection. In the after-treatment, rectal injections of normal saline solution are invaluable for relieving thirst and may be repeated *ad libitum* at all times. He lays great stress on the importance of attention to culinary arrangements in both hospitals and nursing homes, which are

often unsatisfactory. The appetites of patients want coaxing and tempting during convalescence after operations. He mentions the excellent cuisine of the military hospitals in one of the towns in the south of Spain. If, as Napoleon says, a soldier marches on his belly, a patient convalesces on nothing else.

5. **Mental Diseases.**—Shaw reviews the gradual change that has taken place in the professional attitude in regard to mental diseases and considers that our conceptions as to the nature of insanity are so different now from what they were that it becomes daily more and more difficult to say what insanity really is. It has long been recognized that brain disease may exist without insanity, and it would now seem as if the converse also were true, that there may be insanity without disease of the brain, that is, if we do not mean by insanity simply impairment of mind, such as loss of memory, power of attention, etc. If we mean something else, however, there can be no hesitation in saying that there may be insanity without necessarily disease of the brain, though even here there must be some interference with the physical substratum of function acting in a similar manner. The author compares a group of toxic insanities, including such conditions as dementia præcox, *folie circulaire* and puerperal insanity, with the known state described as toxic neurasthenia, and says that he knows no radical difference between the symptoms in severe cases of one and of the other; and though we may call the members of the one group insane, we must not so describe those of the other, but rather consider it as a condition in which the brain is secondarily hampered by some alteration in metabolism brought about by toxins or other abnormalities of the general system. The great question that we must now always put to ourselves is: Where is the toxin and of what nature is it? The symptoms set up by these toxic causes, which often are impossible to distinguish from those of actual disease, are as dangerous as those of the latter. Shaw agrees with a recent expert critic in the *Times* so far that the recognition of the hospital system as the rock bottom on which progress in the treatment of insanity is to be based is the correct one, and demands the whole-hearted cooperation of the medical profession. He deprecates the amount of sedatives and narcotics given in the early treatment of acute mental affections in private practice. He sees a *rapprochement* between law and medicine in the suggestion of one of the Lords Justices, that there are different degrees of responsibility and that this question of degree should be the one by which the final judgment should be ultimately determined.

6. **Alcohol in Insanity.**—Mott writes a most conservative and judicial article in which he takes the position that the effects of alcohol are largely dependent, not only on the quantity and quality of liquor taken and the period during which it has been taken, but also on the personality of the individual—that is, on the physical and mental characteristics that differentiate him from every other individual. He agrees with Sullivan and Bevan Lewis that the rôle of alcohol as an efficient cause of insanity is not so great as the published report of the lunacy commission has indicated. The article is so closely reasoned that it does not lend itself to abstraction. The original should be read by all interested in the subject from whatever point of view.

8. **The Galvanometer as a Measurer of Emotions.**—Peterson employed in his experiments the mirror-galvanometer of Deprez d'Arsonval, with a horizontal celluloid scale placed one meter from the galvanometer. A movable indicator on this scale was connected by cord and pulleys with a pen for recording the deviations of the light on the kymograph (one person being delegated to follow the movements of the light with the indicator). A rheostat was employed, and usually one Bunsen cell. The electrodes ordinarily used were large copper plates on which the hands and feet were placed. Jars of warm water were employed for contact in order to exclude errors from unequal or changing contact. Tests were made in 8 normal individuals, and in 11 cases of dementia præcox (paranoiac, hebephrenic, and catatonic) Peterson concludes that the galvanometer measures acute emotional tones outside of the control of the will. It registers emotional conditions in the conscious or subconscious sphere. Curious differences in the curves were found in the author's experiments. Sometimes with very labile emotions there were marked fluctuations in the galvanometer curves, the respiratory curve being regular and even, and *vice versa*.

12. **Psychology in Medical Schools.**—Schofield urges that in place of some of the great attention now devoted to minute anatomy, laboratory and analytical work, courses should be given on the psychology of the sound mind as a preliminary for studies of the interdependence and interaction of body and mind, and the psychology of various classes of disease, etiology, therapeutics, *vis medicatrix naturæ*, drugs, natural and mental remedies, the patients and the doctor.

13. **Rectal Prolapse in Children.**—Mummery remarks that rectal prolapse is a comparatively common affection among children. It is about equally common in males and females. Diarrhea seems to be the commonest antecedent. Stone in the bladder was in no case present. There was a local cause in only 7 out of 50 cases. General weakness and malnutrition appear to be the commonest factors. Absorption of fat is a result of malnutrition, and the removal of this fat from the rectum predisposes to prolapse. The exciting cause he considers to be the unnatural method of defecation adopted in civilized countries. Pathologic prolapse does not occur in animals or uncivilized races. The natural position is the squatting one, in which the glutei and perineal muscles are firmly contracted, supporting the levatores ani, tightening the pelvic fascia, and firmly fixing the coccyx. In treatment, attention must be paid to the general health and nutrition. The mother must be told that the child must not use the chamber, but pass all its stools into a shallow pan placed on the ground, the child itself being placed in a squatting position. When a local cause is present, it should be attended to; adenoids also, if present, must be treated, as they are an important cause of malnutrition.

14. **Retropharyngeal Abscess.**—Pinches says that retropharyngeal abscess is a condition which is frequently overlooked, possibly more often than any acute illness of childhood, owing to the multiplicity and the variability of the signs and symptoms accompanying it. Examination by the finger, however, should reveal the condition. The author discusses the morbid anatomy, symptoms, diagnosis and differential diagnosis, prognosis and treatment.

The Lancet, London.

September 28.

21 •Problems in Connection with the Suprarenals. H. D. Rolleston.
22 •Prevention of Malaria in the British Possessions, Egypt, and Parts of America. R. Ross.
23 •New Operation for Penile Hypospadias. R. T. H. Bucknall.
24 •Displacements Produced by Pleural Effusion. G. E. Smith.
25 Excision of the Parotid Gland with Preservation of the Facial Nerve. T. Carwardine.
26 •Increase of Diseases of the Nervous System and of Insanity. W. W. Ireland.
27 •Treatment of Rheumatoid Arthritis. W. J. Midelton.
28 •Certain Fatal Forms of Pharyngeal Diphtheria. A. Harris.
29 Treatment of Mammary Carcinoma by the Local Injection of Pancreatic Ferment. R. Morton and H. E. Jones.
30 •Paralysis of Sudden Onset and Wide Distribution. J. W. Putnam.

21. **Problem of the Suprarenals.**—Rolleston considers the three principal views that have been put forward as to the functions of the cortex of the suprarenal gland: (1) That it is connected with growth and development, especially of the sexual organs; (2) that it is antitoxic; (3) that it plays some part in the elaboration of the secretion of the medulla of the gland—adrenalin. The first of these he considers the most definite point about the cortex. With regard to the medulla, by its provision of a pressor substance—adrenalin—which acts on the sympathetic nerve endings, it forms a conspicuous part of the hypertensive glandular system. Its efficient cells, however, the chromophil and chromaffin, are also found elsewhere in contact with the sympathetic, which explains the fact that Addison's disease is not always manifest when there is destruction of the adrenal medulla and that Addison's disease may be present when the adrenal medulla is not obviously affected. He considers the possible pathologic relations of the internal secretion of the medulla, under (1) alteration in quantity, e. g., (a) absence, (b) diminution, and (c) excess; and (2) alteration in quality. The paper is very closely reasoned and does not lend itself readily to abstraction.

22. **Prevention of Malaria.**—Ross traces the history of our modern knowledge of malaria. The problem of dealing with it in malarious British colonies, mostly tropical and inhabited by dark races, is not the same as in more intelligent and civilized communities, a fact often forgotten by academic sanitarians. Individual prophylactic measures can not be easily enforced, but general sanitary measures can be officially adopted without asking consent of any one. The ideal procedure for towns in the tropics consists in: (1) Removal of mosquito breeding waters; (2) quinin treatment in old cases of malaria; (3) as extensive use as possible of wire gauze screen. To these, he adds segregation for Europeans. He details the history of the antimalarial campaigns in West Africa, Ismalia (Egypt), Klang and Port Swettenham (Malaysia), Hong Kong, India, Khartoum, Canada and St. Lucia, and adds a summary of the American campaigns in Havana and Panama, with regard to which he gives great credit to American workers.

His conclusions, in brief, are: (1) For tropical sanitation, against both malaria and yellow fever (and probably filariasis), general mosquito reduction is by far the most practical, as it is the most fundamental method, at least in thickly populated areas. (2) Prophylaxis by quinin, by screens and by segregation may be attempted if possible, in addition to the fundamental measure, but as regards tropical towns must be looked on as only adjuvants to it. It is constantly forgotten that for the individual, quinin is, properly speaking, not a prophylactic at all—it does not exclude infection, but merely extirpates it (in some cases, after it has effected an entry). It is poor policy to suostitute a possible extirpation for a certain exclusion, but as a subsidiary measure it may become essential. (3) The mere knowledge of the fact that mosquitoes cause infection is producing a great improvement in the health of educated people in the tropics, for such people are more careful in the use of nets, and medical men, without undertaking formal campaigns, do more than formerly to suppress breeding pools. A kind of "unconscious prophylaxis" is beginning to be adopted everywhere. (4) But this is not sufficient; state intervention is necessary. Here two great mistakes have been made: (1) In supposing that we can educate the general public by means of notices and pamphlets to protect themselves against disease; we may reach a few educated people thus, but the masses will not heed. (2) In supposing that small local authorities, if left to themselves, will interest themselves greatly in sanitation. Ross notes, as contributory causes, that nothing is done to encourage sanitary officials to bestir themselves in this line. He has not heard of a single instance in which any one who has really done good work against malaria has received official thanks or reward for his pains, while honors have been given to men who have actually retarded such work. The only way to overcome this inertia, he declares, is by official compulsion from higher authorities. The remedy is centralization of the antimalarial administration. Each principal government which presides over malarious countries or colonies should appoint a special commissioner to travel from place to place in order (1) to advise local authorities as to the best measures for dealing with malaria in each locality; (2) to report to the head government; and (3) to organize the collection of statistics. Such an appointment is perfectly practicable.

23. **Penile Hypospadias.**—Bucknall describes an operation, successful in his hands, which has not hitherto been described. The advantages claimed are as follows: (1) Rapidity of accomplishment, lessening shock and permitting operation at an early age; (2) The skin forming roof and floor of the new urethra retains its vitality and does not tend to slough. (3) New sutures project into the new urethra. (4) The skin of the roof and floor of the new urethra is in respective continuity with the pre-existing roof and floor, thus avoiding a tendency to fistula. (5) No buried sutures are necessary, and tendency to leakage is prevented. Objections: (1) The operation is applicable only if the scrotum is uncleft. (2) Hair may possibly grow later from the skin of the scrotal rhaphe, forming the new urethral floor. He combats these objections.

24. **Pleural Effusion.**—Smith describes the alterations in the topographical relations of the thoracic and abdominal viscera that may be produced by the effusion of fluid into the pleural sac. This can not fail to be of value to the discussion on the significance of Grocco's triangle. He describes what has actually happened in cases of pleurisy when the patients have died untreated, and the parts have been preserved and fixed in the positions which they occupied in life. Describing in particular one case in detail, he says: If a chart were drawn to show the relation to the back of this left extension of the right pleural sac it would be found to present a considerable resemblance to "Grocco's triangle." Its broad base would be found just above the twelfth rib and it would taper gradually up to the second dorsal vertebra. That this is the explanation of "Grocco's triangle" I do not for a moment pretend; but that it may be a factor of some importance in producing left-sided dulness in right-sided effusions must be patent.

26. **Increase of Insanity.**—Ireland refers to the greater strain on the nervous system and its earlier commencement in modern life, the overtaxing of schools, the increased study for professions, the greater anxiety and hurry of life, the restlessness induced by increased facilities of intercommunication, all of which are causes of irritation and depression. There is a craving for a variety of excitements and enjoyment, a growth of artificial wants and greater difficulty in keeping up under competition. Several years ago he addressed to many physicians of experience and reputation the following queries: 1. Have you found since you began to practice medicine that there has been an increase in the relative frequency of diseases of the nervous system? 2. Have new forms come into prominence? 3. Have you observed any change in the type of old diseases? The answers which he received were far from settling the questions. His own opinion is that there has been no noticeable increase in nervous diseases in country districts and small towns, but that there has been an increase in large towns, especially of functional disorders, e. g., neurasthenia. This probably affects some classes and persons more than others; monotonous work demanding severe and unremitting attention is most trying for the nerves and assists in causing mental derangements. Nervous diseases and insanity are especially common with telegraphers, letter sorters and persons who have to check mechanical labor. He discusses the statistics of the increase of the graver forms of nervous diseases in Great Britain, the increase of suicide and of insanity, respectively, in England, Scotland and Ireland; also in France, The Netherlands and the United States. He says that those who assert that the increase of insanity is only apparent, with insular narrowness confine their attention to the British Isles, and advance many arguments that are based on local conditions in support of their contention. One of the most important of these is that the increase is mainly in pauper lunatics, which is to be accounted for by the fact that more such now enter the asylums for various reasons or are registered than was formerly the case. He says that while granting something to all these explanations so ingeniously pleaded, it is the outcome of his inquiries that they fail to account for the whole increase of insanity. He would say that we have to deal with an advance along the whole line, an increase in nervous diseases, in suicides and in lunacy.

27. **Rheumatoid Arthritis.**—For six years Midelton has had great satisfaction in treating rheumatoid arthritis by the treatment recommended some years ago by Latham of Cambridge, namely, counterirritation of the spine by blisters to the region of the cervical and lumbar enlargements. He considers it the most useful therapeutic agent. In only one case did strangury occur, and it lasted only a few hours and yielded to copious water drinking and hyoscyamus. The irritation must be pronounced and prolonged, and applied at the right spot.

28. **Fatal Pharyngeal Diphtheria.**—Harris says that there are certain cases of diphtheria in which a fatal ending can with certainty be predicted. The symptoms presented by these patients are as follows:

1. A grayish color of the face, which in addition presents an anxious expression. 2. Vomiting. This seems independent of food and is not accompanied by nausea. It presents a similarity to cerebral vomiting. The vomited matter is yellow or green. 3. Abdominal pain. This is sometimes very severe. It is, however, nearly always present in these cases. It is referred to the um-

bilicus. No abdominal tenderness can be elicited. 4. Albuminuria. This is generally present and often to a large amount (from one-sixth to a quarter). There are no tube casts. 5. Suppression of urine is the rule in these cases. 6. Alteration in the rhythm of the heart sounds. This appears after the vomiting has set in. One of the sounds of the heart is reduplicated, thus giving an imitation of the sounds to be heard when a horse gallops. The patients are generally very restless and consciousness is maintained until the end. The membrane on the throats in these cases is dark colored and the smell of the breath is most offensive.

He reports six cases. Antitoxin had no effect, though 6,000 units were generally given. He suggests that there may be several kinds of diphtheria bacilli elaborating different toxins. In all these cases, numbers of streptococci and staphylococci were associated with the bacilli.

30. **Paralysis.**—Putnam says that the symptoms and course of the disease present in the seven cases he reports were to a great extent the same, but the interpretation of the symptoms from an etiologic and pathologic standpoint varied widely. The diagnosis of Landry's paralysis should be made in those cases in which the onset is sudden, the muscular paralysis passes from the lower extremities to the upper, sensation is unimpaired, the nerve trunks are not tender, the bladder and rectum are not involved, and the electrical action is unchanged. The diagnosis of acute infectious multiple neuritis was made in cases in which there had been a previous disease, as in the cases of paralysis following urethritis, in which the symptoms are general motor paralysis, disturbances of sensation, tenderness in the nerve trunks, atrophy and change in the electrical reaction. Putnam does not believe it always possible to make a positive differential diagnosis between cases of Landry's paralysis and acute infectious multiple neuritis, or between myasthenia gravis and acute bulbar paralysis. It is only by the reporting of carefully studied cases that we can hope to improve our classification.

Medical Press and Circular, London.

September 25.

31 Congenital Anomalies of the Eye. (Concluded.) S. Stephenson.
32 Diseases and Displacements of Testicle in Childhood. D'A. Power.
33 *Medical Supervision of Secondary Schools in Sweden. M. G. Törnell.
34 *The Beginnings of Disease. J. L. Tayler.
35 Early Diagnosis and Treatment of Progressive Paralysis. K. Heilbronner.

33. **Medical Supervision of Schools in Sweden.**—Törnell says Sweden is to be regarded as a pioneer country in respect to the appointment of medical officers in conjunction with schools. Mention is made of such officers as long ago as between 1830 and 1840, and their duties were prescribed by ordinance in 1863. The present code is dated Feb. 18, 1905. The duties of the Swedish school medical officer are thus summarized:

1. To examine the scholars medically, in order to find out the state of health of each.
2. To adopt preventive measures against the spread of infectious complaints.
3. To superintend the school premises as regards their sanitary condition.
4. To provide against the scholars being overburdened with lessons, etc., and thereby becoming overworked.
5. To attend indigent children in case of illness free of charge.
6. To draw up statements on any problem that may arise regarding school hygiene, and to hand in periodical reports of the work that it has fallen to their lot to discharge.

The school medical officer is more than a mere adviser. He takes an active part in discussion and votes at the staff meeting on questions pertaining to the health of the pupils or the sanitary arrangements of the school. He has, furthermore, to do what in him lies to see that hygienic and sanitary regulations are duly carried out. The law is too recent for its working to be reported on.

34. **Beginnings of Disease.**—Tayler says that minor departures from health and border-land phenomena afford a wide field for investigation by the general practitioner, both because of the widespread inconvenience they cause and of their rôle as the starting point of disease.

Journal of Tropical Medicine and Hygiene, London.

September 2.

36 Plague. W. J. Simpson.

Indian Medical Gazette, Calcutta.

September.

37 Metabolism of Native Prisoners in the Calcutta Jail. D. McCay, S. C. Bannerji and M. M. Dutta.
38 Work of the Jullundur Civil Hospital in 1906. H. Smith.
39 Black-Water Fever in Burma. L. G. Fink.
40 Disposal of Sewage in Cantonments. A. W. C. Young.
41 *Catarrhal Jaundice. N. S. Wells.

41. **Catarrhal Jaundice.**—Wells describes as a fallacy the idea that milk is the best diet in catarrhal jaundice. He says that milk is no more easily digested than some of the other articles mentioned, and, in addition to this, it is particularly unsuitable in this disease because of the amount of fat it contains. The fat is not absorbed, and is decomposed by bacteria. The decomposition products set up irritation which tends to prolong the disease. He discusses the physiology in some detail. Functional rest of the stomach and duodenum is most important, and at the outset is capable of aborting an attack of catarrhal jaundice. This rest should be complete for at least twenty-four hours. The patient can get along comfortably with alkaline drinks and water or barley water, provided he is strictly confined to bed. Our energies should be directed toward the reductions of the turgescence of the mucous membrane, to stop the secretion of mucus and dissolve out what has already been formed. He recommends peptonized gruel made with finely ground oatmeal, clear soup, and soft boiled rice and dry toast, consomme thickened with tapioca or sago, thin arrow root with a little milk, first thoroughly skimmed and peptonized. For drugs, he gives warm alkaline drinks, mineral waters or a solution of sodium bicarbonate to dissolve out the mucus, saline purgatives, to remove intestinal contents and waste products from blood. Severe purging should be avoided. A dose of calomel may be given in the beginning and occasionally afterward. A linseed and mustard poultice over the upper part of the abdomen is better than hot fomentations. Warm enemas are indicated when there is constipation, but cold enemas are to be eschewed.

Dublin Medical Journal.

September.

42 *The Opsonic Index and Tehrapeutic Inoculations of Bacterial Vaccines. A. H. White.
43 Report of the Rotunda Hospital. (Continued.) A. Holmes and R. J. Rowlette.
44 Epidemic Cerebrospinal Fever. R. B. Bryan.

42. The subject-matter of this article is practically the same as in the article by this author which appeared in THE JOURNAL, Aug. 10 and 17, 1907.

Presse Médicale, Paris.

September 14, XV, No. 74, pp. 585-592.

45* Urobilinuria Not a Sign of Insufficiency of the Liver. A. Gilbert and M. Herscher.
46 Value of Comparatively Large Doses of Strychnin. A. Martinet.

September 18, No. 75, pp. 593-600.

47 *Cutaneous and Ocular Reaction to Tuberculin. (Cuti-réaction à la tuberculine chez l'adulte. Ophthalmo-réaction.) Olmer and M. Terras.
48 The So-called "Salol Principle" in Pharmacodynamics. A. Martinet.
49 *Treatment of Oriental Boil with Potassium Permanganate. (Bouton du Nil.) Medici.
50 Massage and Induced Hyperemia. Durey.

September 21, No. 76, pp. 601-608.

51 Colloidal Metals in Treatment of Febrile Infections. Carrieu.
52 Phagocytic Action of Giant Cells. F. Daels.
53 *Apomorphin in Diagnosis of Bulbar Affections. J. Ferreira.
54 Technic of Amputations of Parts of Hand and Arm. V. Veau. Commenced in No. 74.

45. **Urobilinuria Not a Sign of Insufficiency of the Liver.**—Gilbert and Herscher relate a number of cases of urobilinuria in patients whose liver was normal or functioning to excess; also a group of cases in which there was no urobilinuria, although the liver functions were almost completely suspended; in a third group there was no urobilinuria until the liver functioning commenced to improve. They present still further arguments to prove that urobilinuria is not dependent on the functioning of the liver in the majority of cases, but is of renal origin, being formed in the kidney from bile pigments in the blood. Urobilinuria testifies merely to cholemia, they assert, and is thus an index of the production of bile by the liver. In many cases its appearance indicates approaching recovery.

47. **Cutaneous and Ocular Reaction to Tuberculin.**—Olmer and Terras applied one or both of these tests in 51 cases, and found the ophthalmo-reaction more reliable than the cutaneous. The skin of some persons is more sensitive than others', and

to this they ascribe the varying response to the cutaneous test. A positive response was obtained in a number of patients clinically cured of tuberculosis and not presenting any appreciable tuberculous lesion. On the other hand, 11 out of 31 tuberculous patients failed to show any response, while it was positive in 3 patients apparently entirely free from tuberculosis in any form.

49. **Potassium Permanganate for Oriental Boil.**—Medini experimented on his own person and found that a 10 per cent. potassium permanganate preparation of vaselin had remarkable abortive and curative effect. This experience was confirmed with three patients.

53. **Apomorphin in Diagnosis of Bulbar Affections.**—Ferreira announces that a weak or negative response to a small test injection of apomorphin will reveal bulbar paresis before it is clinically manifested. Glossolabial-laryngeal paralysis can thus be detected in its incipiency by the degree of nausea and the amount of vomiting. If there is no vomiting at all, the medulla oblongata is already seriously affected.

Semaine Médicale, Paris.

September 18, XXVII, No. 38, pp. 445-456.

55 *Rachitis in Relation to Deformity of the Palate and Chronic Hypertrophy of the Lymphoid Tissue of the Pharynx. Marfan.

September 25, No. 39, pp. 457-468.

56 Mammary Cancer at the American Surgical Congress. (Cancer du sein.) R. de Bovis.

57 Researches in Experimental Syphilis of the Liver. (Syphilis hépatique exp.) J. Milhit.

55. **Rachitis in Its Relation to Adenoid Growths, etc.**—Marfan noted adenoid vegetations in 73 per cent. of young children with rachitis and enlarged tonsils in 63 per cent. He ascribes the conditions to a common origin, explaining rachitis as the result of defensive reactions induced by infections or chronic intoxications in the unusually active bone marrow of the fetus or young child.

Berliner klinische Wochenschrift.

September 23, XLIV, No. 38, pp. 1187-1234.

58 Further Experience with Atoxyl in Pellagra. V. Babes and A. Vasiliu.

59 Results of Experimental Cancer Research. (Exp. Krebsforschung.) E. F. Bashford, J. A. Murray and M. Haaland.

60 Trachoma Virus Does not Pass Through Filter. Non-pathogenic Properties of Cultivatable Flora from Trachomatous Conjunctiva. C. Fermi and R. Repetto.

61 *Anemia Induced by Toxolecithids and Its Course Under Medication. J. Morgenroth and K. Reicher.

62 Loss of Specific Properties by Heterologous Albumins. (Arteigenheitsverluste der körperfremden Eiweissstoffe.) J. Kentzler.

63 Importance of Deviation of Complement in Bacteriologic Diagnosis. (Wert des Komplementablenkungsverfahrens in der bakt. Diagnostik.) C. Moreschi.

64 Case of Pyemia Due to Influenza Bacillus. W. Spät.

65 *Influence of Diet on Tuberculosis. (Einfluss der Ernährung auf die Tub.) R. Weigert.

66 *Practical Importance of Sore Throat in Epidemic Cerebrospinal Meningitis. (Rachenerkrankung bei der Genickstarre.) Westenhoeffer.

67 Typhoid Toxin, Antitoxin and Endotoxin. Relations Between Anaphylaxis and Immunity. (Beziehungen zwischen Ueberempfindlichkeit und Immunität.) A. Wolff-Eisner.

68 *Death from Exsanguination. (Verblutungstod.) H. Marx.

69 Medical Inspectors of Schools. (Schularztfrage.) L. Linkenheld.

70 Danger of Asphyxia from Fumes of Benzin Used in Disinfection. E. Senger.

61. **Anemia from Toxolecithids and Its Treatment.**—Morgenroth and Reicher relate experimental research which suggests a possible antagonistic action between cholesterin and the toxolecithids and toxolipoids. Their findings, they claim, encourage the tentative use of cholesterin in all anemias of parasitic origin and, possibly, in pernicious anemia of unknown origin. The harmlessness of cholesterin and its ready absorption in the intestinal tract, in their experiments on animals, justify its use in the clinic, they say. They worked with the lecithid from cobra venom, and found that injection of cholesterin prevented the development of the anemia otherwise inevitable after intravenous injection of the cobra toxolecithid.

65. **Influence of Diet on Tuberculosis.**—Weigert has been conducting extensive research to determine the actual importance of the diet in the development and the resisting powers. He found that tuberculous infection in pigs ran a much milder course in the animals that had been fed copiously with fat than in those with less fat and more sugar and flour in their food. An exceptionally abundant diet proved unable to prevent the development of tuberculous infection. The lack of fats in the diet of the poor is an important factor in the prevalence of tuberculosis among them, he affirms, in conclusion. In the diet of the tuberculous, the carbohydrate should be replaced by fats so far as possible without falling into the error of a too one-sided diet.

66. **Sore Throat in Epidemic Cerebrospinal Meningitis.**—Westenhoeffer calls attention anew to the importance of the specific sore throat in this disease, especially from the epidemiologic standpoint. The meningococci lurk far back in the pharynx. He reports a case of circumscribed but fatal meningitis, with meningococci in the cerebrospinal fluid, which developed in an apparently healthy young man immediately after an operation for hemorrhoids under spinal anesthesia. The meningococci could not be found anywhere else in the body, and no possible opportunity for the infection could be discovered, even on testing all the persons in the environment in the search for a possible bacilli carrier. Westenhoeffer thinks that this case suggests a possibility that the meningococcus—like the pneumococcus—is capable of leading a saprophytic existence in healthy individuals. Healthy meningococcus carriers were recently discovered in a German regiment and barracks where no cases of epidemic cerebrospinal meningitis had ever been known.

68. **Death from Hemorrhage.**—Among the signs of having bled to death are isolated small hemorrhages under the endocardium of the left ventricle. They have been found in about 50 per cent. of the cases of external bleeding and in some cases of internal hemorrhage. These ecchymoses occur more readily the more rapid and the more complete the loss of blood. They occur also in phosphorus poisoning and in sepsis, and their absence is not conclusive evidence against death from hemorrhage. The blood remaining in the vessels contains fewer red corpuscles than the blood of an ordinary cadaver. Twenty-two cases are known of fatal vaginal hemorrhage from injury during sexual intercourse. Cases are known also in which the blood poured into the skin in such amounts as to exsanguinate with fatal outcome. This has been observed in Russian horse thieves scourged and pounded. This possibility is more imminent in children than in adults; a flogging might induce such hemorrhage into the skin as to prove fatal without external or internal hemorrhage. Infants have been known to die from loss of only 50 c.c. of blood or less. They are at the foot of the scale of tolerance, while pregnant and parturient women stand at the top of the scale.

Centralblatt f. Chirurgie, Leipsic.

September 21, XXXIV, No. 38, pp. 1113-1136.

71 *Injury of Longitudinal Sinus. Hemostasis by Suture of Dura (Verletzung des Längsblutleiters. Blutstillung durch "Duranaht.") Revenstorf.

72 Treatment After Removal of Mammary Cancer. (Nachbehandlung bei Mammakarzinomoperationen.) F. Berndt.

September 28, No. 39, pp. 1137-1160.

73 Technic of Blind Closure of Duodenum After Resection of Pylorus. Billroth's Second Method. (Blinder Duodenalverschluss.) A. Krogius.

71. **Injury of Longitudinal Sinus and Hemostasis.**—Revenstorf takes a stitch on each side of the sinus, passing the needle through the dura a little to each side and then over the sinus. Three of these cross sutures are generally sufficient. By drawing up and tying the threads, a tear or cut in the sinus is drawn together and hemorrhage is arrested at once. The lips of the wound are held together, while no foreign substance projects into the lumen, the stitches being applied over the sinus. He reports three cases in which this simple suture proved possibly a life-saving measure.

Centralblatt f. Gynäkologie, Leipsic.

September 21, XXXI, No. 38, pp. 1129-1160.

74 *Suprarenal Extract in Osteomalacia. (Adrenalinwirkung bei Osteomalakie.) M. Neu.

75 *Blastomycetes and Inflammations of Female Genital Organs. (Blastomyceten und Entzündungen der weibl. Genitalien.) H. van de Velde.

September 28, No. 39, pp. 1161-1192.

76 *Perforation of Uterus. R. v. Braun-Fernwald.

77 *Diagnosis and Treatment of Urogenital Tuberculosis with Koch's Tuberculin Preparations. R. Birnbaum.

78 Pubiotomy in the Home. (Pubiotomie im Privathause.) W. Sigwart.

74. **Suprarenal Extract in Osteomalacia.**—Neu warns against the possible perils of the large doses of suprarenal extract that have been reported in the cases of osteomalacia treated in this way. He has been making a special study of the pharmacologic action of suprarenal extract, his findings confirming those of others in regard to the way in which the heart is strained to the limits of its endurance by a large dose, while at the same time the vasoconstriction of the coronaries interferes with the nourishment of the heart. In pregnant women there is likewise danger of irritation of the uterus. The brilliant results achieved by Bossi in two cases of osteomalacia and in those reported by others must be accepted, he thinks, as having been attended with risks from high dosage.

75. **Blastomycetes and Inflammations in Female Genitalia.**—In seventy-seven gynecologic patients van de Velde has found blastomycetes in pure or mixed cultures. The trouble was generally acute inflammation of the cervical mucosa, or exacerbation of chronic, generally gonorrheal, inflammation. In five cases there was a suppurative cervical catarrh, persisting for years. In nine cases the inflammation developed suddenly, with itching and smarting, greyish-yellow, mucopurulent discharge and redness and swelling of the vulva and vagina. Six patients in this group had been previously in his care, and he was able to trace the infection to the water they had used in rinsing the genital parts. One of the women had boiled the water, showing the resistance of the spores. He found an effectual treatment to be irrigation with a salicylate solution and alcohol. Fifteen of his patients were pregnant, and in two other cases he found pus containing only blastomycetes and cell detritus in an old tubal lesion. In one case the blastomycetes penetrated into the amniotic fluid and were evidently responsible for the fever observed during the childbirth. He also found blastomycetes in vulvulitis and colpitis in little girls. In one instance a mother and her two little girls were affected.

76. **Perforation of the Uterus.**—Braun-Fernwald warns among other things of the possibility of pushing an exploring sound through the opening made by preceding maneuvers for criminal abortion. He remarks that perforation occurs more readily with a small than a large curette, and consequently advises waiting until the cervix is dilated enough to allow the passage of a larger curette. He also advises a loop rather than a spoon curette, and that it should be bent at a considerable angle. To avoid injury in removing relics of an abortion, he advocates the use of the fingers, by the general practitioner, but for the specialist he advises a modified Schultze curette with rounded spoons, and no catch. The gravid uterus is more readily perforated than the non-gravid. Whenever the sound enters farther than anticipated from the size of the uterus, it is wisest to assume a perforation and to act accordingly. The wall of the uterus is liable to relax suddenly and simulate a perforation, especially at the point where the ovum is embedded. This sudden relaxation may occur in consequence of irritation of the uterus, dilatation of the cervix or from toxic influences. He has never observed a case of atony of the uterine wall allowing the sound to enter deep. If the perforation was done with a sound, in an aseptic case, he thinks rest and supervision all that is necessary. Even in infected cases, expectant treatment is his rule until threatening symptoms develop, when he removes the uterus through the vagina and drains. In case the perforation was the work of forceps and there is the slightest suspicion of injury to the intestines, he advises laparotomy at once. Some authors go so far as to advise laparotomy at once in every case of perforation. Clearing out the uterus with the finger must be done very gently. In Lovrich's case the uterus tore nearly completely around, above the cervix, while he was clearing out relics of an abortion with his finger. If the cervix requires dilatation, Fernwald advises pushing iodoform gauze into the cervical canal and vagina. Twenty-four hours of this intrauterine and vaginal tamponing dilates the parts and sometimes clears out the uterus; if not, the organ can readily be cleaned out with the finger. He reviews the recent literature on the subject of perforation.

77. **Tuberculin in Urogenital Tuberculosis.**—Birnbaum states that the findings with the tuberculin test in 100 cases corresponded invariably with the clinical course of the disease. In 23 cases tuberculin treatment was instituted, and the results were so encouraging that, afterward, it was made a rule to apply tuberculin treatment in every case of a tuberculous process in the female urogenital apparatus, before resorting to operative measures, except in case of well-developed and accessible lesions which are generally of mixed infection. The rapid gain in weight was one of the most striking features of the tuberculin treatment. The organism must be capable of responding to the tuberculin stimulus and there must be entire absence of fever. He gives the tuberculin treatment by stages, like Petruschky, and is guided by the opsonic index.

Deutsche medizinische Wochenschrift, Berlin.

September 19, XXXIII, No. 38, pp. 1521-1568.

79 *Atoxyl in Syphilis and Frambesia. Neïsser.
80 Pathogenesis and Specific Breaking Down of Cancer. (Pathogenese und spez. Abbau der Krebsgeschwülste.) P. Bergell and A. Sticker.
81 Theory and Practice of Threshold Percussion. (Schwellenwertsperkussion.) A. Simons.
82 *Treatment of Injuries of the Heart. (Herzverletzungen. Punktion des Herzbeutels.) F. Franke.
83 Importance of Early Exercise in Obstetrics and Operative Gynecology. (Uebung und Schonung in der Geburtshilfe und Gynäkologie.) B. Krönig.
84 Gynecologic Massage, Especially Vibratory Massage. O. von Herff.
85 Chorionepithelioma After Vesicular Mole and After Abortion. A. Bauer.
86 Sodium Perborate in Affections of Ears, Nose and Throat. (Natrium perboricum bei der Behandlung von Ohren-, Nasen-, Rachen- und Halskranken.) A. Hartmann.
87 *To Economize Drugs. (Zur sparsamen Verwendung des Curare bei Froschversuchen.) C. Jacobj.

79. **Atoxyl in Syphilis and Frambesia.**—Neisser writes from Batavia that his experimental research on apes has shown that atoxyl has an unmistakable and decided action in syphilis. This is shown conclusively in the fact that apes inoculated with syphilitic material do not develop the disease if they are treated with atoxyl. He found large single doses most effectual, and a combination with trypan red better than the atoxyl alone. Frambesia is also influenced by atoxyl, another argument in favor of the clinical and etiologic connection between syphilis and frambesia.

82. **Treatment of Injuries of the Heart.**—Franke comments on the fact that 120 cases of heart injuries are on record in which operative treatment has been attempted, with successful outcome in 46 per cent. In 729 cases collected recently by Fischer, in which no operation was done, less than 16 per cent. of the patients survived. He then describes some personal experiences and reviews the published reports, the conclusions all tending to prove that the geat danger in case of injury of the heart is from pressure on the organ from the blood accumulating in the pericardium. This pressure is the main source of the disturbances in the functioning of the heart—not the injury itself. No matter whether an operation is contemplated or not, the first step is to remove this pressure by puncture and aspiration of the accumulated blood. In most cases, this will render further operative intervention unnecessary, and in all cases should precede it. He urges the general practitioner to puncture when symptoms develop—not waiting for surgical assistance. Even at the best, he adds, more extensive operative treatment is apt to be accompanied by complications leaving a predisposition to organic affections later. He preaches that the future progress in operative treatment of wounds of the heart will be along the line of avoiding an operation, and this, he thinks, can be accomplished by early puncture of the pericardium. Zoege von Manteuffel has reported seven cases of bullet wounds of the heart, in Manchuria, in which complete recovery occurred promptly under expectant treatment alone. Such cases are to be diagnosticated, not operated on, he says. Franke goes farther than this, adding "but punctured." Puncture is not only a palliative but a distinct life-saving measure in such cases. The physician must be guided by the course of the case as to the proper moment for puncture. It may be possible to wait two or three days, as in a case reported; the puncture should not be delayed a moment after the heart shows signs of impairment of its energy, but delay is always an advantage when practicable; the external wound is closed with adhesive plaster. He punctures generally the pericardium in the fifth intercostal space,

2 or 3 cm. from the sternum, proceeding very slowly, slanting the needle toward the median line. He punctures under Schleich local anesthesia; an incision in the skin is not necessary.

87. **To Economize Curare, etc., in Experimental Work.**—Jacobj makes his solution of curare as usual and then soaks it up evenly into a piece of filtering paper marked off with pencil into regular squares. When dry, the paper keeps indefinitely, and one of the little squares represents a definite amount of the drug.

Münchener medizinische Wochenschrift.

September 17, LIV, No. 38, pp. 1857-1912.

88 *Pathology and Treatment of Alveolar Emphysema of the Lungs. H. Pässler and H. Seidel.
89 Diabetes and Catalysis. H. Schade.
90 Bacteriologic Research on Cholelithiasis. Bacmeister.
91 Discovery of Spirochetes in Pseudoleukemic Enlargement of Lymph Glands. (Sp. bei pseudoleuk. Lymphdrüsenhyperplasie.) Proescher and C. White.
92 Disinfection with Iodin and Benzin. Enderlen.
93 Simplified Dressing After Operations Involving Axilla. (Vereinfachung des Verbandes nach Mammaamputation und anderen Operationen in der Achselhöhle.) A. Ebner.
94 Prospects of Operative Cure of Gastrointestinal Carcinoma. (Heilungsaussichten beim Magen- und Darmkarzinom.) W. Anschütz.
95 What is to be Designated as Generalized Vaccinia? (Generalisierte Vakzine.) L. Voigt.
96 *Enlargement of Vessels Resulting from Exposure to Radium Rays. (Beseitigung der durch Radiumstrahlen bewirkten Gefässerweiterungen.) H. Axmann.
97 New Sterilizer for Salt Solution, Adjustable at Different Heights, with Water Cooler. (Kochsalzsterilisationsapparat.) Becker.
98 Tearing Off of Spinous Process by Muscular Traction. (Abreissung von Wirbeldornfortsätzen durch Muskelzug.) K. Henschen.

88. **Operative Treatment of Emphysema of the Lungs.**—THE JOURNAL has duly chronicled from time to time W. A. Freund's announcements in regard to the pathogenic possibilities of anomalies in the costal cartilages interfering with the normal elasticity of the chest wall. He thinks that this is an important factor in the predisposition to tuberculosis and alveolar emphysema, and believes that resection of the costal cartilages, restoring elasticity to the chest wall, will have a curative influence. The third case of alveolar emphysema in which this operation has been done is here reported. There were no complications, but the patient, a man of 50, had been incapacitated for work by the progressive symptoms during five years. The thorax was barrel-shaped and rigid. An editorial refers to this operative treatment of emphysema as a most important progress. The results obtained in this case, as also in a fourth recently reported at Halle, were surprisingly good, the patients being relieved at once from all disturbances. The success in these cases confirms Freund's theories in regard to the pathogenic importance of anomalies in the costal cartilages.

96. **To Cure the Enlargement of Vessels Liable to Follow Radium Exposures.**—Axmann has found that the short-waved ultra-violet rays seem to have an antagonistic action to the radium rays. Energetic exposure to these ultraviolet rays has always promptly cured the telangiectatic changes noticed after radium exposures.

Archivio per le Scienze Mediche, Turin.

XXXI, No. 2, pp. 99-201. Last indexed, August 31, p. 811.

99 *Antitoxic Action on Suprarenal Extract of Serum of Animals After Removal of Suprarenals. (Azione antitoss. sull' adrenalina del siero di animali scapsulati.) G. Ciuffo.
100 Three Cases of Carcinoma of Thyroid Gland. (Carc. della ghiandola tiroide.) M. Donati.
101 *Cytolytic Serums and Hemorrhagic Infections. A. C. Demel and G. Sotti.
102 Effect of Mental Work on Sensitiveness of Hearing, Sight and Touch. (Comportamento della sensibilita, etc., in seguito al lavoro mentale.) A. Graziani.
103 Study of Secretions and Pancreatic Functions in Experimental Uremia. A. G. Barbera and S. Briguglio.
104 Action of Bacteria on Potassium Tellurite and Oxygenated Water. M. Pergola.
105 Terminations of Nerves in "Ammocoetes branchialis." R. Fusari.

99. **Antitoxic Action on Suprarenal Extract of Serum of Animals After Removal of Suprarenals.**—Ciuffo's experiments were along the same line as the application of serum from thyroidectomized animals in treatment of thyroid affections. He thinks that they demonstrate that serum from animals from whom both suprarenal capsules have been removed, has a decided inhibiting influence on the toxic action of suprarenal extract when injeted into normal animals.

101. **Cytolytic Serums and Hemorrhagic Infections.**—Extensive experimental research is reported, the animals being injected with cytolytic or hemolytic serums after inoculation with some pathogenic germ. In every case almost without exception, the infection ran an exceptionally severe course, assuming a hemorrhagic form. The authors think that the hemorrhagic form of an acute infection is probably due to the production in the body of some hemolytic or cytolytic toxin.

Gazzetta degli Ospedali, Milan.

September 15, XXVIII, No. 111, pp. 1155-1170.

106 The Visual Field in Different Normal Persons. (Campo visivo.) U. Alessi.
107 Disturbances in Sensibility in the Tuberculous. A. Gasparini.
108 *False Kidney Colic of Malarial Origin. (Pseudo colica nefritica da malaria.) S. Connata.

108. **False Kidney Colic of Malarial Origin.**—Counata reports two cases of apparent kidney stone colic in adults. He gave sedatives in the first case and diuretics, watching for the passage of stones. The colic returned at regular intervals, without mitigation, and the enlarged spleen finally suggested the possibility of a deceptive malarial affection. Under quinin the pains subsided and the spleen returned to its normal size. In the second case, quinin was given from the start, with prompt recovery. He knows of only nine similar cases on record.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interest of our readers.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. For Students and Practitioners. By James Magoffin French, A.M., M.D., Formerly Lecturer on the Theory and Practice of Medicine, Medical College of Ohio. Third, Revised Edition. Illustrated by 110 Engravings in the Text and 25 Full-Page Plates in Tints and Colors. Cloth. Pp. 1253. Price, $5.00. New York: William Wood & Co., 1907.

BRIEF SKETCH OF ONE OF BALTIMORE'S GREATEST MEN, HORATIO GATES JAMESON, M.D., His Most Valuable Contribution to Surgery: The Occlusion of the Arteries by the Buried Animal Ligature. By Henry O. Marcy, A.M., M.D., LL.D., Surgeon to the Cambridge Hospital for Women, Etc. Paper. Pp. 24. From the Transactions of the Southern Surgical and Gynecological Association, 1906.

TROPICAL DISEASES: A Manual of the Diseases of Warm Climates. By Sir Patrick Manson, K.C.M.G., M.D., LL.D. (Aberd.), Fellow of the Royal College of Physicians, London; Fellow of the Royal Society; Foreign Associate of the Académie de Médecine, France, Etc. With Illustrations and Colored Plates. Fourth Edition. Cloth. Pp. 876. Price $4.50. New York: William Wood & Co., 1907.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF WOMEN. By Harry Sturgeon Crossen, M.D., Clinical Professor of Gynecology, Washington University; Gynecologist to Washington University Hospital and Chief of the Gynecological Clinic, Etc. With Seven Hundred Illustrations. Cloth. Pp. 800. Price $6.00. C. V. Mosby Medical Book and Pub. Co., St. Louis, 1907.

PRIMARY NURSING TECHNIC for First-Year Pupil Nurses. By Isabel McIsaac, Graduate of the Illinois Training School for Nurses; Formerly Superintendent of the Illinois Training School for Nurses; Honorary Member of the British Matron's Council, Etc. Cloth. Pp. 197. Price, $1.25 net. New York: The MacMillan Company, 1907. All Rights Reserved.

TWENTIETH REPORT OF THE STATE BOARD OF HEALTH OF WISCONSIN. Two Years ending Sept. 30, 1904, with Registration Report Relating to Births and Deaths for Part of the Period 1903 and 1904. By C. A. Harper, M.D., Secretary of the State Board of Health. Cloth. Pp. 486. Madison, Wisconsin: Democrat Printing Co., State Printer, 1905.

A SUMMARY OF THE COMPULSORY ATTENDANCE AND CHILD LABOR LAWS OF THE STATES AND TERRITORIES OF THE UNITED STATES. New York State Library Bulletin 114, Legislation 34. Compiled by James D. Sullivan, Chief, Attendance Division, N. Y State Education Department. Paper. Pp. 112. Albany: New York State Education Department, 1907.

CLINICAL THERAPEUTICS. A Handbook on the Special Treatment of Internal Disease. By Alfred C. Croftan, Author of "Clinical Urinology." Second Edition, Revised. Cloth. Pp. 626. Price, $5.00. Chicago: Cleveland Press, 1907.

PROCEEDINGS OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION at the Sixty-Second Annual Meeting held in Boston, June 12-15, 1906. Volume 13. Paper. Pp. 589. Published by the Association. 1906.

IN MEMORIAM. Albert Ethelbert Ebert, Dec. 23, 1840, to Nov. 20, 1906. Nestor of American Pharmacy. Biographical Sketch, etc., by American Pharmaceutical Association. Illustrated. Paper. Pp. 73.

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